

Learning

# Materials

for mobile devices





1

# INTRODUCTION

# WELCOME

What is the number one search engine for our students today?

If you guessed Google then I have to disappoint you. You are close though, YouTube is consulted as the first gateway to learning nowadays. And that has taught me a valuable lesson as a teacher. It made me realize that students learn different with mobile devices and that I should make more use of these tools and their strengths. So instead of dropping a text document in front of them, I'm carefully choosing all kinds of media (audio, video, apps, widgets, ...) to enhance their learning journey.

Mobile devices are taking the learning journeys to both inside and outside the classroom, making it more interactive, immersive, and engaging. And as teachers we all know that engaged students are

*"If You Can Google It, Why Teach It,"*  
- Joshua Starr -



**What is the number one search engine for our students today?**



motivated students, and that will enhance their performance. With so much wonderful educational content at our finger tips, we also face one of our biggest challenges: finding the right resources. And then remembering where the resource is.

After all, all we want to do is create the best possible learning experience for our children. And with our current abilities there's no limit to the exciting possibilities for learning.

If you're just getting started teaching with mobile devices, it's helpful to begin by setting goals for student learning. What must students understand? What should their interaction with the content look like? And which learning materials would work best for your specific lesson? You may find that choosing a learning material is easier after carefully considering what you want students to do with it, and why.

Questions like these might pop up in your mind:

- What material might help my students to better understand a lesson or topic that they are struggling with?
- How can my students interact with the content?
- Does the material help me differentiate in my classroom? How is it appealing to the multiple learning styles?

This guide will help as you begin to explore, choose, and integrate learning materials for mobile devices into your classroom.

2

**DISCOVER**

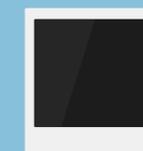


## WHERE

Sometimes finding the right material for your lesson is like finding a needle in a haystack. From bookstores to app stores, the whole Web is full. It can be quite overwhelming and even intimidating.

So, what kind of materials are available? How do I find them? And how can I integrate them into my topic or lesson so that my students benefit from them?

In this chapter we are going on a discovery with you and we will provide you with some questions to ask yourself as you explore, evaluate, and select educational resources.





# Audio



## FINDSOUNDS

FindSounds lets you search the Web for thousands of sounds. Search the Web for sounds from Animals, Birds, Households, Insects, Musical Instruments, Offices, People, Sports, Tools, TV & Movies, and Vehicles.

Find sounds by typing or speaking a word or phrase, or by selecting from a list of sounds. You can also record a sound and locate similar sounds on the Web.

Sounds can be saved as ringtones, notifications, and alarms.

[www.findsounds.com](http://www.findsounds.com)





## SOUNDCLOUD

Create, record and share the sounds you create with anyone using SoundCloud, the world's largest community of sound creators.

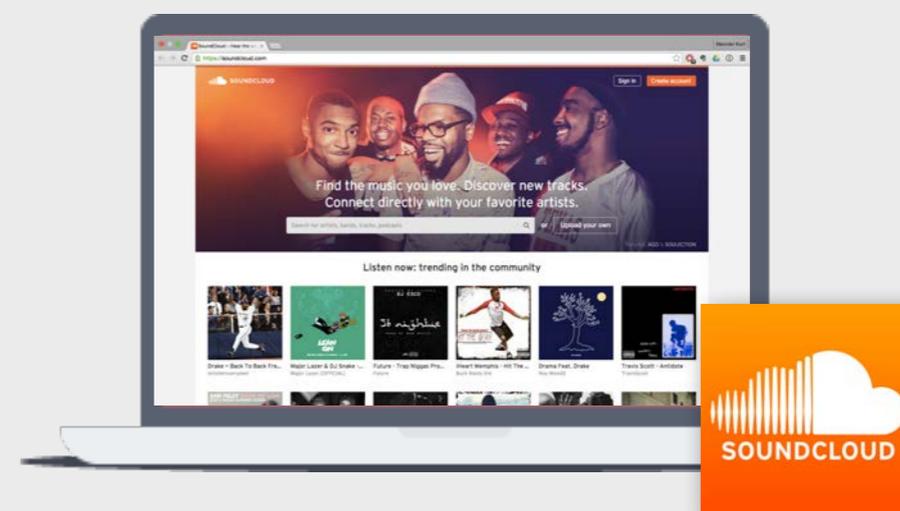
Recording and uploading sounds to SoundCloud lets people easily share them privately with their friends or publicly to blogs, sites and social networks. It takes just a click to share sounds to Twitter, Tumblr, Facebook and Foursquare.

SoundCloud can be accessed anywhere using the official iOS and Android apps, as well as hundreds of creation and sharing apps built on the SoundCloud platform.

[www.soundcloud.com](http://www.soundcloud.com)

Available on the  
**App Store**

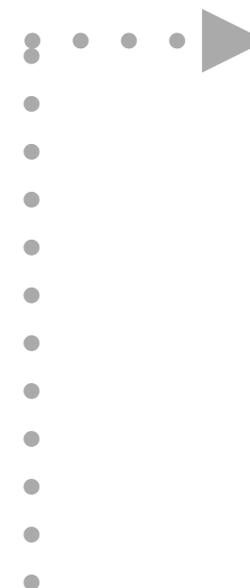
ANDROID APP ON  
**Google play**





## AUDIOBOOM

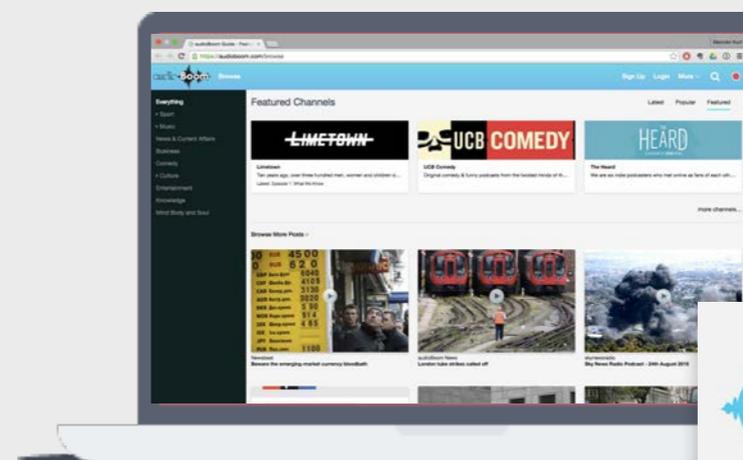
Audioboom lets you record audio snippets, which you can share with friends or broadcast to the world. You can also add images, titles and tags and upload it to the Web, complete with biographical and geographical information on where and when it was recorded.



[www.audioboom.com](http://www.audioboom.com)

Available on the  
**App Store**

ANDROID APP ON  
**Google play**





# Video

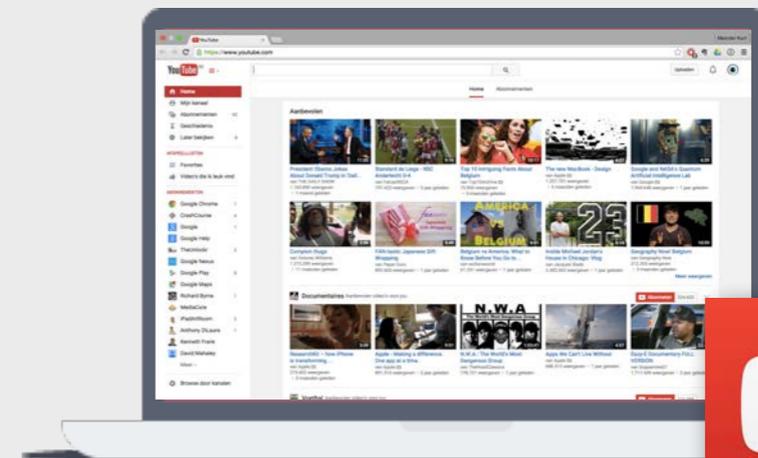


## YOUTUBE

See what the world is watching -- from the hottest music videos to what's trending in gaming, entertainment, news, and more. Subscribe to channels you love, share with friends, and watch on any device.

You can also subscribe to your favorite channels, create playlists, edit and upload videos, express yourself with comments or shares, cast a video to your TV, and more – all from inside the app.

[www.youtube.com](http://www.youtube.com)





## VIMEO

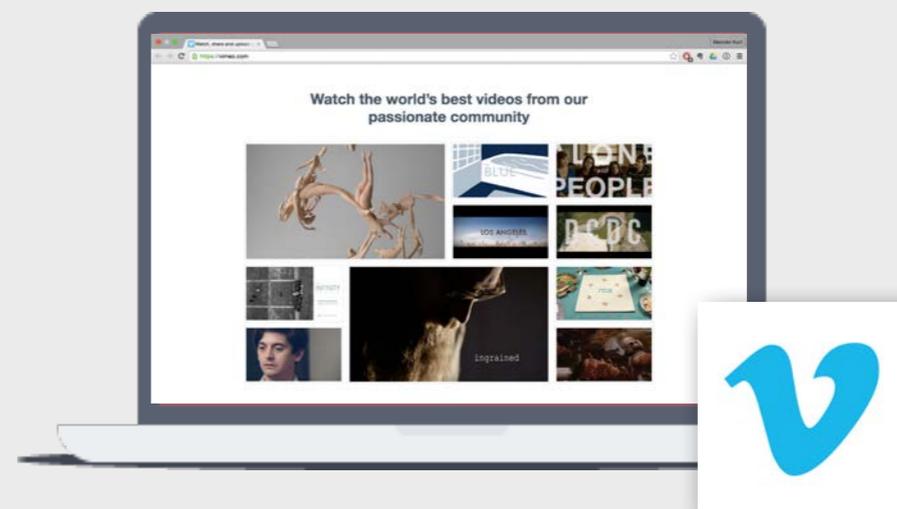
Watch gorgeous ad-free HD videos from the world's best creators, and easily upload and share your own.

Discover incredible videos by insanely creative filmmakers, even when you're on the go. Each day, they hand-select their Staff Picks to bring you the best of what's being uploaded by the talented community. Even if you're a casual creator, your videos belong on Vimeo. Easily upload videos right from your Camera Roll and share them in our beautiful HD player with zero ads, or keep them to yourself.

[www.vimeo.com](http://www.vimeo.com)

Available on the  
**App Store**

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## TEACHERTUBE

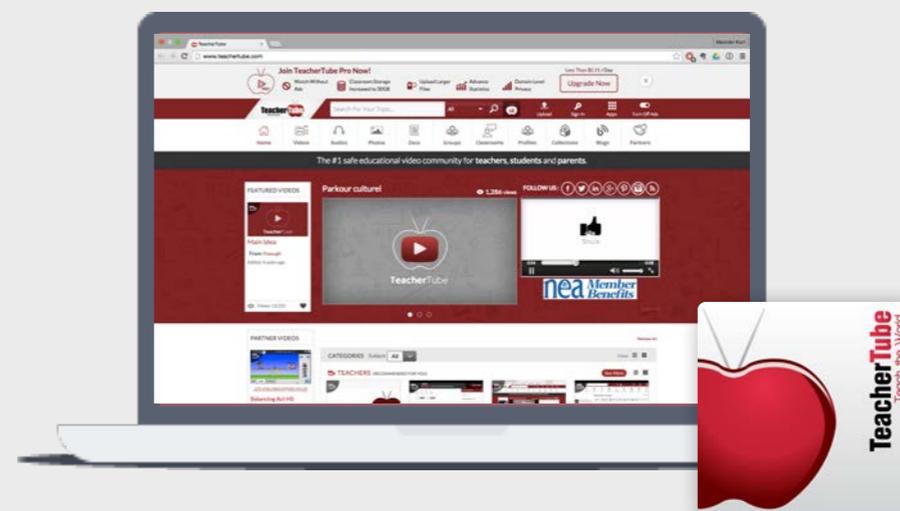
All the resources you need to know about math, art, educational videos, economics, physics, chemistry, biology, medicine, finance, history, and more. We provide it all for FREE. Watch, read and learn more about education content, Common Core, Texas Essential Knowledge and Skills TEKS.



[www.teachertube.com](http://www.teachertube.com)

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**App Store**

ANDROID APP ON  
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# Books



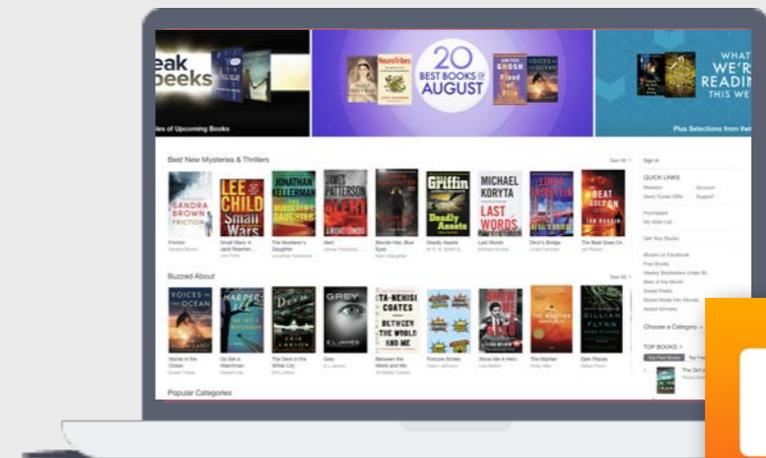
## IBOOKS

iBooks is an amazing way to download and read books. iBooks includes the iBooks Store, where you can download the latest bestselling books or your favorite classics – day or night. Browse your library on a beautiful bookshelf, tap a book to open it, flip through pages with a swipe or a tap, and bookmark or add notes to your favorite passages.

Books — especially textbooks — get updated for any number of reasons. Thankfully, the iBooks app supports book updates. That means if a book you purchased is republished with new or additional content, iBooks lets you know. You can download the updated version free.

[www.apple.com/ibooks](http://www.apple.com/ibooks)

Available on the  
App Store





## GOOGLE PLAY BOOKS

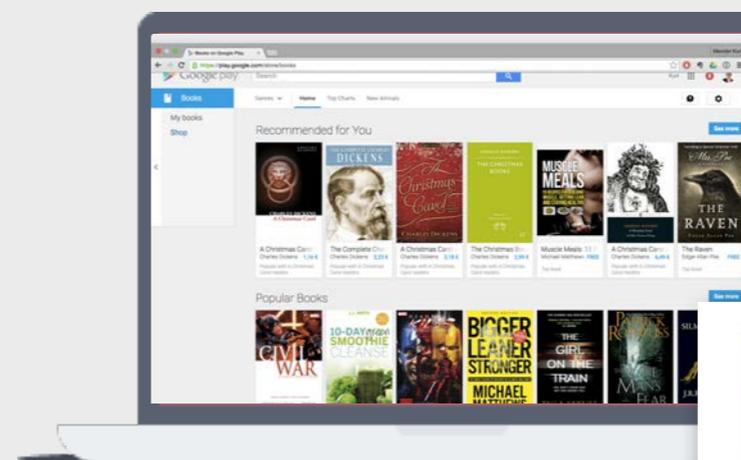
Choose from over 4 million books on Google Play and take your favorites with you for reading offline.

It's time to set your reading free. With Google Play Books, you can use just about any device you own to read any book, anywhere. The user may also upload up to 1000 ebooks that are in PDF or EPUB formats to their Google Play Books account cloud storage, and synchronize them between multiple devices.

[play.google.com/books](https://play.google.com/books)

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# Documents



## SCRIBD

Scribd brings you a world of more than one million books, audiobooks, and comics.

Discover recommendations tailored to you based on titles you've loved, or explore hand-picked favorites from our editors. Store titles right on your device and take your library with you wherever you go.

They are available in 80 languages across nearly every country on mobile, tablet, and web.

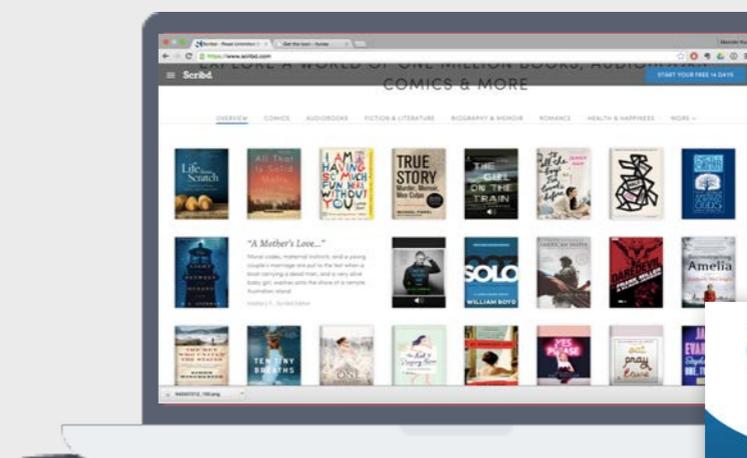
[www.scribd.com](http://www.scribd.com)



Available on the  
App Store



ANDROID APP ON  
Google play





## SLIDESHARE

Boost your knowledge anytime, anywhere with the official LinkedIn SlideShare app. Explore over 15 million presentations, videos and infographics in stunning, full-screen layout. No time to read now? Save favorites to read later - even offline!

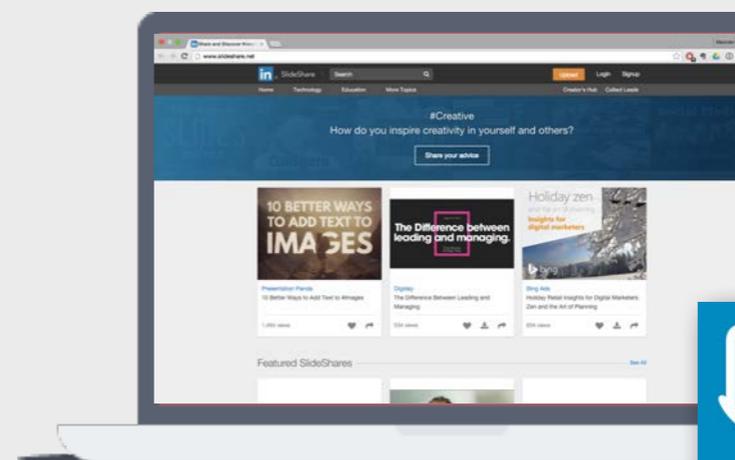
Use the LinkedIn SlideShare app to:

- Explore over 15 million professional presentations, infographics, and videos
- Discover content in your favorite topics, from Technology and Leadership to Engineering and Healthcare

[www.slideshare.net](http://www.slideshare.net)

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## ISSUU

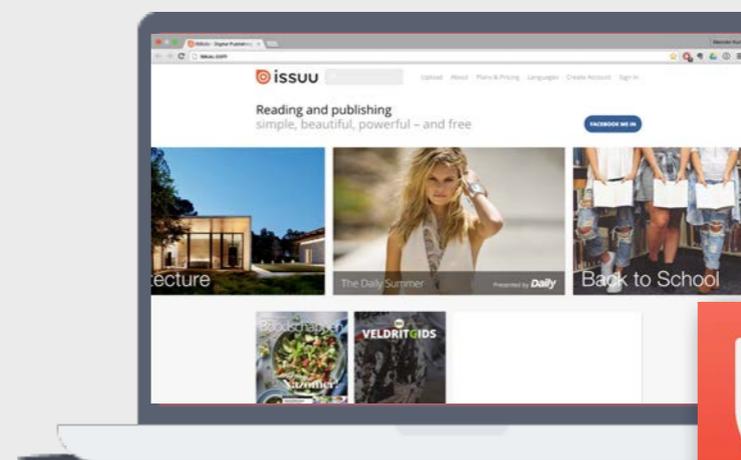
Enjoy unlimited access to magazines, catalogs and more from wherever you are, whenever you like, at no cost. Stack collections of your favorite magazines and share them across social networks. Issuu's smart content recommendation engine learns as you read and delivers a personalized and continuous stream of new, relevant and interesting magazines for you to browse.

Customize your feed by picking interests you enjoy, and issuu's smart content recommendation engine learns as you read. You'll find content you love mixed with new and exciting magazines in a continuous stream personalized to your interests.

[www.issuu.com](http://www.issuu.com)

Available on the  
**App Store**

ANDROID APP ON  
**Google play**





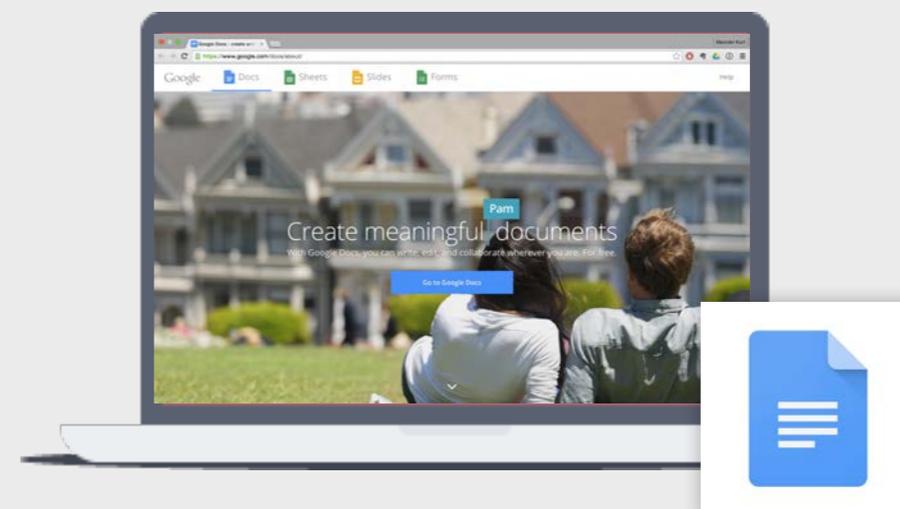
## GOOGLE DOCS

Create, edit, and collaborate with others on documents from your mobile device with the free Google Docs app.

With Google Docs you can:

- Create new documents or edit any that were created on the web or on another device
- Share documents and work together with others in the same document at the same time
- Open, edit, and save Microsoft Office documents

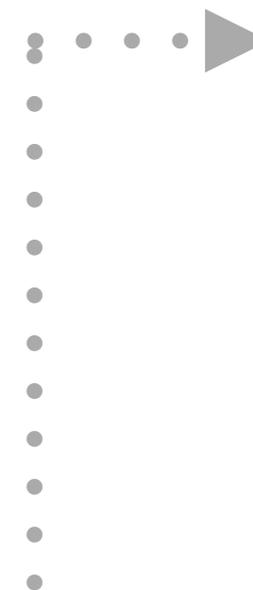
[www.google.com/docs/about](http://www.google.com/docs/about)





## IWORK FOR ICLOUD BETA

Pages, Numbers, and Keynote are the best way to be productive on a Mac or iOS device. Now we've brought that productivity to the web — on Mac and PC. The apps make it incredibly easy to work together with people everywhere. And since it's all powered by iCloud, your documents are always up to date on each of your devices.



[www.apple.com/iwork-for-icloud](http://www.apple.com/iwork-for-icloud)





# Apps



## APP STORE

The App Store features over 80,000 education apps — designed especially for iPad — that cover a wide range of subjects for every grade level and learning style.

The App Store gives you endless ways to help students learn new concepts and express their creativity. Let your class explore the properties of magnesium with an interactive periodic table of elements. Or find a digital painting app to make art anywhere without brushes or paint. You can find apps that complement different learning styles. Whatever you're teaching, apps help you do what you do best — inspire students to think in new ways.

[itunes.apple.com/store](https://itunes.apple.com/store)



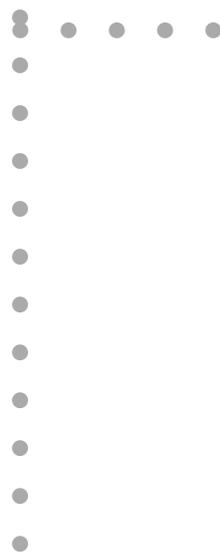
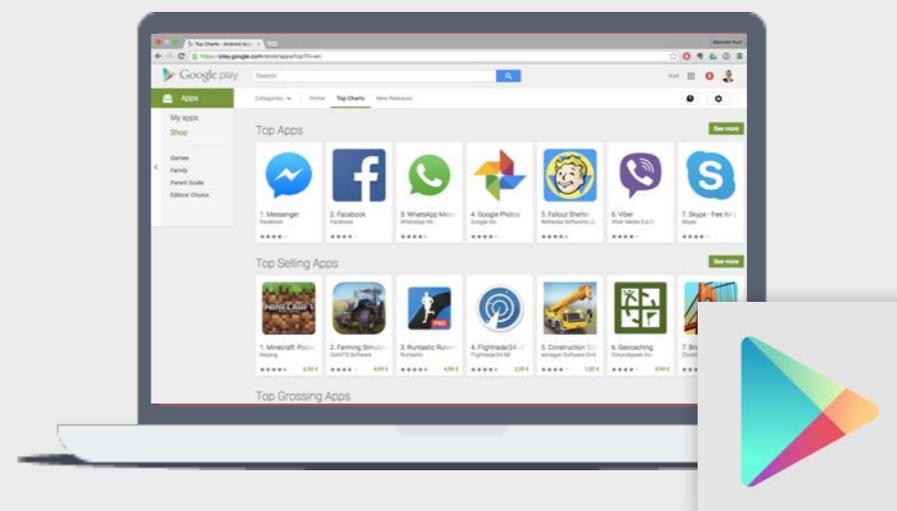


## GOOGLE PLAY APPS

Google Play, which was originally born and referred to by Google as the Android Market, is Google's official store and portal for Android apps, games and other content for your Android-powered phone, tablet or Android TV device. Just as Apple has its App Store, Google has the Google Play Store. It's a huge place and it offers a lot of content to its users.



[play.google.com/store/apps](https://play.google.com/store/apps)





# Images



## PEXELS

It's hard to understand complex licenses that is why all photos on Pexels are licensed under the Creative Commons Zero (CC0) license. This means you can copy, modify, distribute and perform the photos. The pictures are free for personal and even for commercial use. All without asking for permission or setting a link to the source. So that attribution is not required. All in all the photos are completely free to be used for any legal purpose.

[www.pexels.com](http://www.pexels.com)





## FLICKR

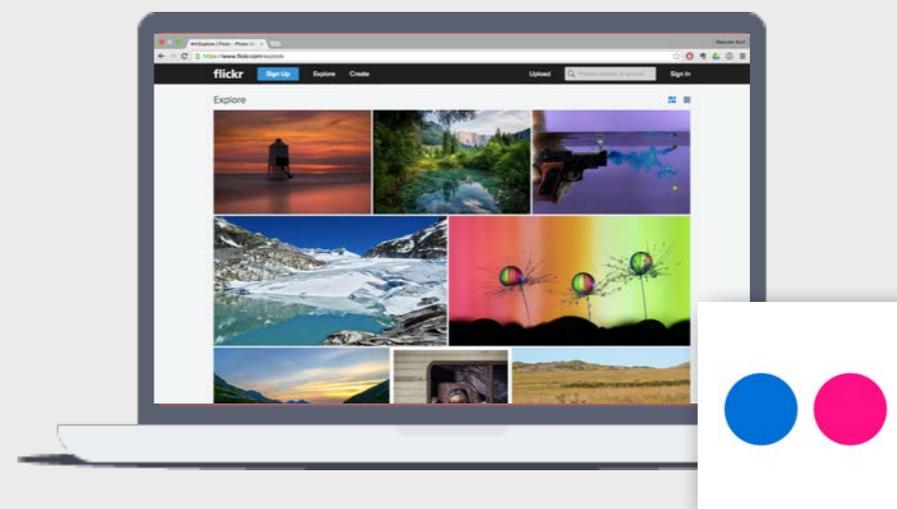
Introducing the new Flickr - upload, access, organize, edit, and share your photos from any device, from anywhere in the world.

- Put your free 1000GB to work - auto-upload all your photos and videos, privately storing them in your Flickr camera roll.
- Camera roll in the cloud - instant access to your entire Flickr collection, so you can free up your phone for everything else.
- Unleash your creativity - tweak your photos, add filters, crop images and more, directly from the camera roll. And if you change your mind, just revert the changes.

[www.flickr.com](http://www.flickr.com)

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**App Store**

ANDROID APP ON  
**Google play**





## CC SEARCH

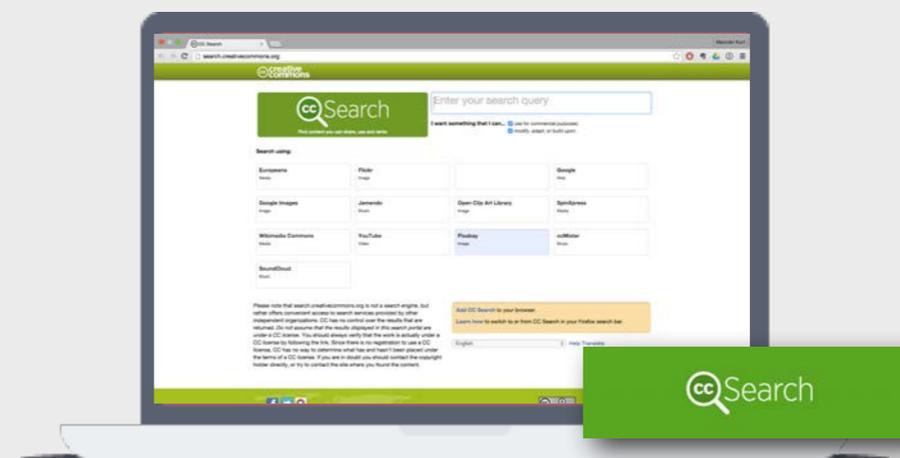
CC Search, short for Creative Commons Search, is one more great search engine for images licensed under the Creative Commons licenses. Though technically they might not be a search engine, as they themselves state explicitly, they offer results for multiple other sites, such as Europeans, Flickr, Google Images, Wikimedia Commons, Fotopedia, Open Clipart Gallery, Pixabay.

In addition to images, CC Search offers results for music, videos, and other media as well.

Keep in mind that Creative Commons isn't a pseudonym for 'free-for-all'. Take note of and honor all linking, accreditation and other usage conditions.



[search.creativecommons.org](https://search.creativecommons.org)





# Storage



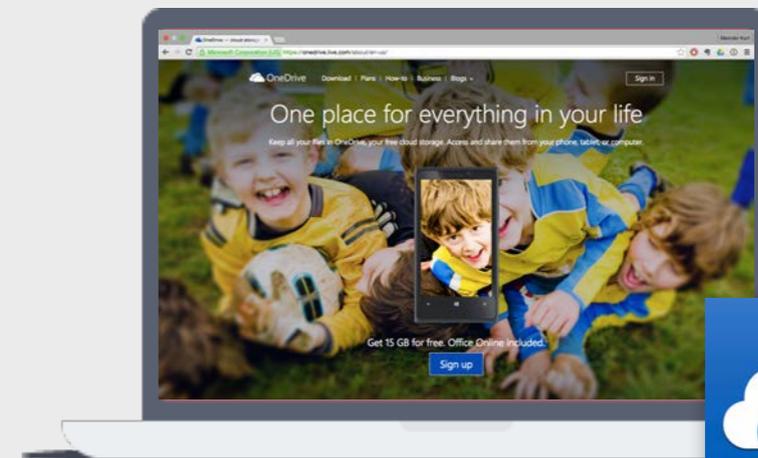
## ONEDRIVE

OneDrive is the one place for everything in your work and personal life. It gives you free online storage for all your personal files so you can get to them from your device, computer (PC or Mac), and any other devices you use.

The OneDrive app lets you easily work with your personal and work files when you're on the go:

- Browse all your OneDrive files and files shared with you.
- Open your OneDrive files in other apps, including Office apps.

[onedrive.live.com](https://onedrive.live.com)





## DROPBOX

Dropbox is the place for your photos, docs, videos, and other files. Files you keep in Dropbox are safely backed up and you can get to them from all your devices. It's easy to send large files to anyone, even if they don't have a Dropbox account.

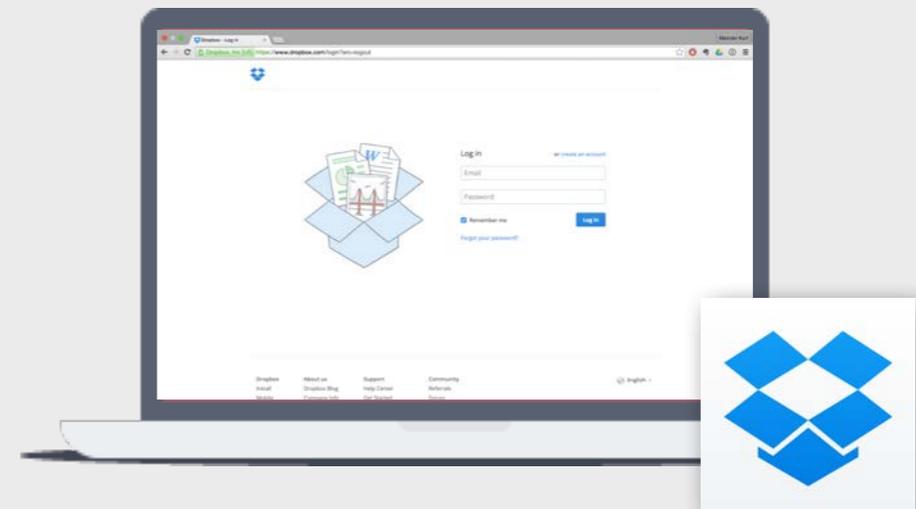
Features:

- Create and edit Microsoft Office files from your iPhone or iPad
- Back up photos and videos automatically if you choose
- Share links to your largest files without using email attachments
- Access your files offline

[www.dropbox.com](http://www.dropbox.com)

Available on the  
App Store

ANDROID APP ON  
Google play





## GOOGLE DRIVE

Get started with Google Drive for free and have all your files within reach from any smart-phone, tablet, or computer. All your files in Drive – like your videos, photos, and documents – are backed up safely so you can't lose them. Easily invite others to view, edit, or leave comments on any of your files or folders.

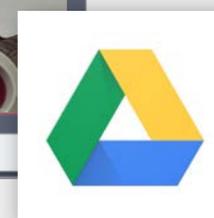
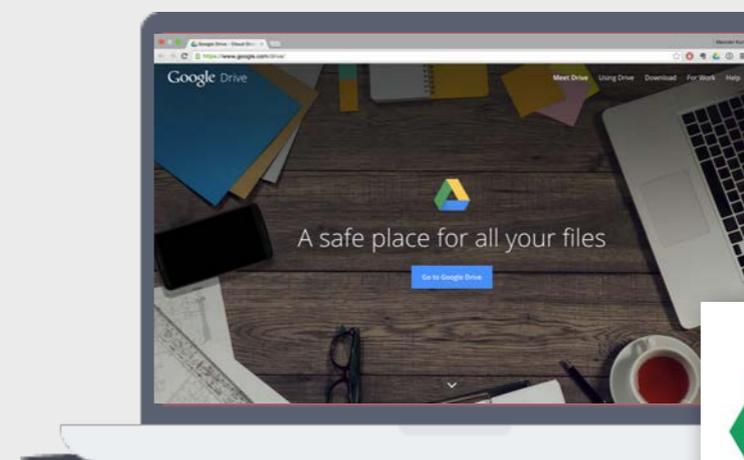
With Drive, you can:

- View documents, PDFs, photos, videos, and more
- Easily share files and folders with others
- Set files or folders so anyone with a link can view, comment, or edit

[www.google.com/drive](http://www.google.com/drive)

Available on the  
**App Store**

ANDROID APP ON  
**Google play**





# Widgets



## BOOKWIDGETS

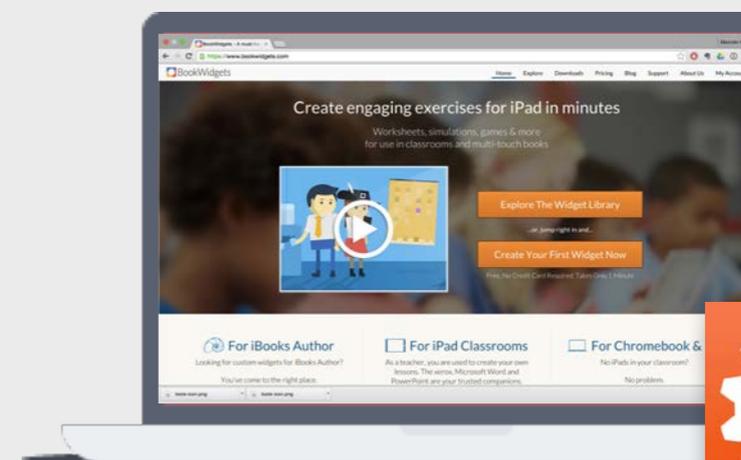
BookWidgets is an easy way to create exercises for iPads, Chromebooks, Android tablets and PCs. These exercises can be sent to students directly using the app, can be used online or can also be embedded as custom HTML5 widgets in iBooks Author multi-touch books.

Generating your own widgets is a simple 3-step process:

1. Choose a widget type from a list
2. Fill in your data in a wizard (e.g. questions and answers for a quiz)
3. Share with your students

[www.bookwidgets.com](http://www.bookwidgets.com)

Available on the  
App Store



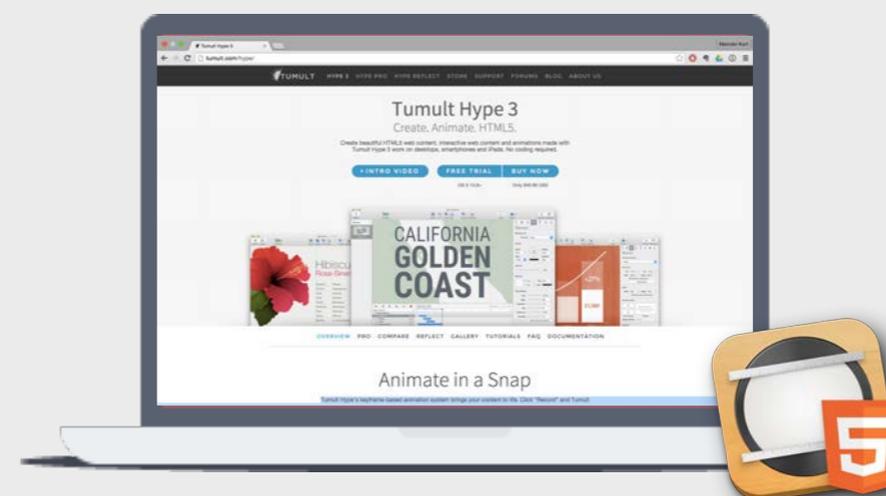


## TUMULT HYPE

Create beautiful HTML5 web content. interactive web content and animations made with Tumult Hype 3 work on desktops, smartphones and iPads. No coding required.

Tumult Hype's keyframe-based animation system brings your content to life. Click "Record" and Tumult Hype watches your every move, automatically creating keyframes as needed. Or, if you'd prefer to be more hands-on, manually add, remove, and re-arrange keyframes to fine-tune your content. It is easy to create natural curves by clicking and dragging on an element's motion path to add bézier control points.

[tumult.com/hype](https://tumult.com/hype)





## LEARNINGAPPS

LearningApps.org is a Web 2.0 application, to support learning and teaching processes with small interactive modules. Those modules can be used directly in learning materials, but also for self studying.

The aim is to collect reusable building blocks and make them available to everyone. Blocks (called Apps) include no specific framework or a specific learning scenario. The blocks are therefore not suitable as complete lessons or tasks, instead they must be embedded in an appropriate teaching scenario.



[learningapps.org](https://learningapps.org)





# Other



## ITUNES U

iTunes U provides everything an instructor needs to bring their classroom together on iPad—build lessons with apps and your own materials, collect and grade assignments from students, discuss one-on-one or in groups, and annotate PDF assignments.

iTunes U is also still the place where anyone with an iPhone, iPad, or iPod touch can learn from the world's largest collection of free education content—including public courses and collections from leading schools, universities, museums, and cultural institutions.

[www.apple.com/education/ipad/itunes-u/](http://www.apple.com/education/ipad/itunes-u/)

Available on the  
App Store





## KHAN ACADEMY

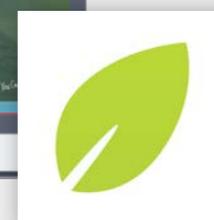
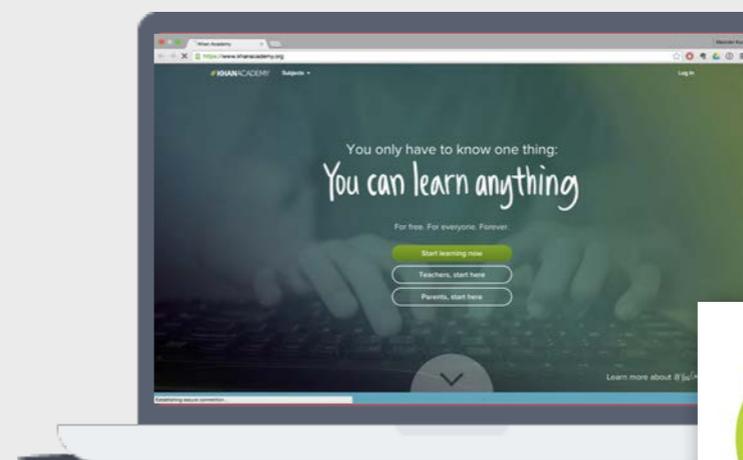
Learn using videos, interactive exercises, and in-depth articles in math (arithmetic, pre-algebra, algebra, geometry, trigonometry, statistics, calculus, linear algebra), science (biology, chemistry, physics), economics, and even the humanities with playlists on art history, civics, finance, and more.

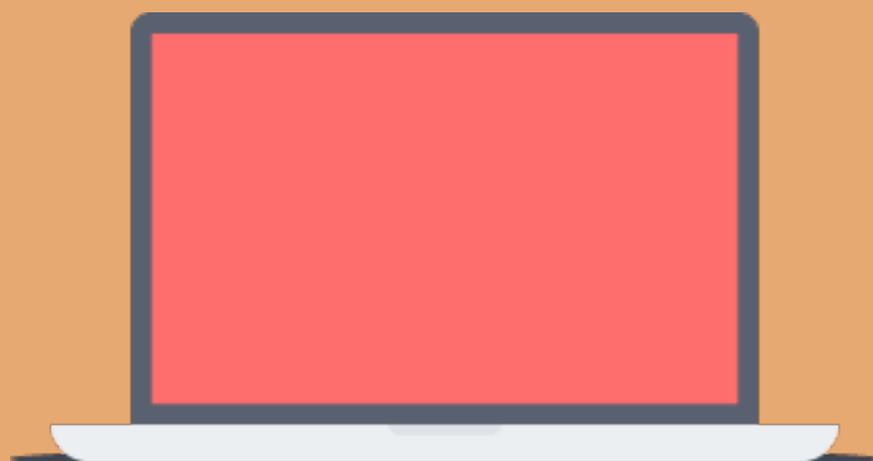
It doesn't matter if you are a student, teacher, home-schooler, principal, adult returning to the classroom after 20 years, or a friendly alien just trying to get a leg up in earthly biology—Khan Academy's materials and resources are available to you completely free of charge.

[www.khanacademy.org](http://www.khanacademy.org)

Available on the  
**App Store**

ANDROID APP ON  
**Google play**





**How do I evaluate the materials that I've found?**

## HOW

You may find that choosing a material is easier after carefully considering what you want students to do with it, and why.

On the following pages are key considerations of teachers who have done this work before you. As you begin your own journey, you might explore their questions.

The answers can help you to integrate learning materials for mobile devices in the classroom.



# Relevance

The material has a strong connection to the curriculum or the topic you are using it for. In evaluating whether your tool meets your learning goals, you might consider:

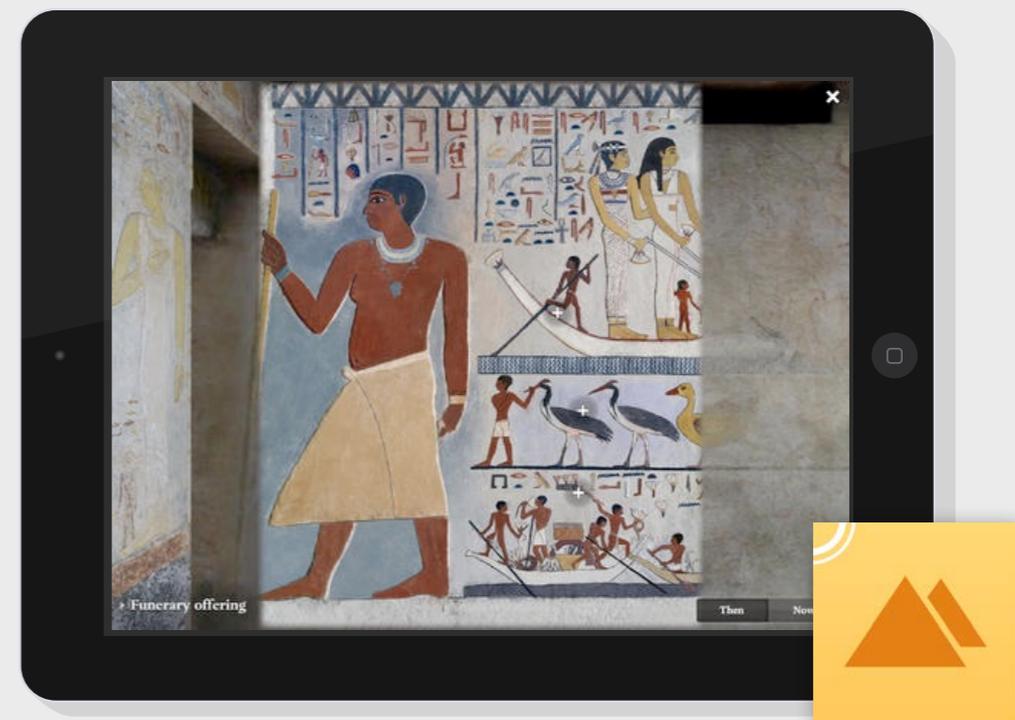
- Is the material appropriate for the student?
- Is the content factual and reliable?
- Does it align to your learning goals?

## Featured material

### The Pyramids

With this beautiful iPad app from Touchpress you can explore the incredible pyramids and tombs of ancient Egypt. Fly around the plateau where the pyramids and the Sphinx are located at Giza near Cairo. Enter and wander around the labyrinthine tombs and passageways.

[pyramids.touchpress.com](http://pyramids.touchpress.com)





# Navigation

Ease of use and a low learning curve is what you are looking for when you try a new tool. You might consider these questions while navigating through the tool:

- Does the material use the touchscreen effectively throughout its use?
- Is it intuitive to use?
- Is there a help function or tutorial available?

## Featured material

### Book Creator

Book Creator sits atop of the best educational apps. You can use this tool with learners of all ages, from kindergarten to adults. Its simplicity is refreshing, allowing authors to focus on their content.

[www.redjumper.net](http://www.redjumper.net)





# Customization

Complete flexibility to alter content and settings help you meet student needs. In evaluating such materials, consider these questions:

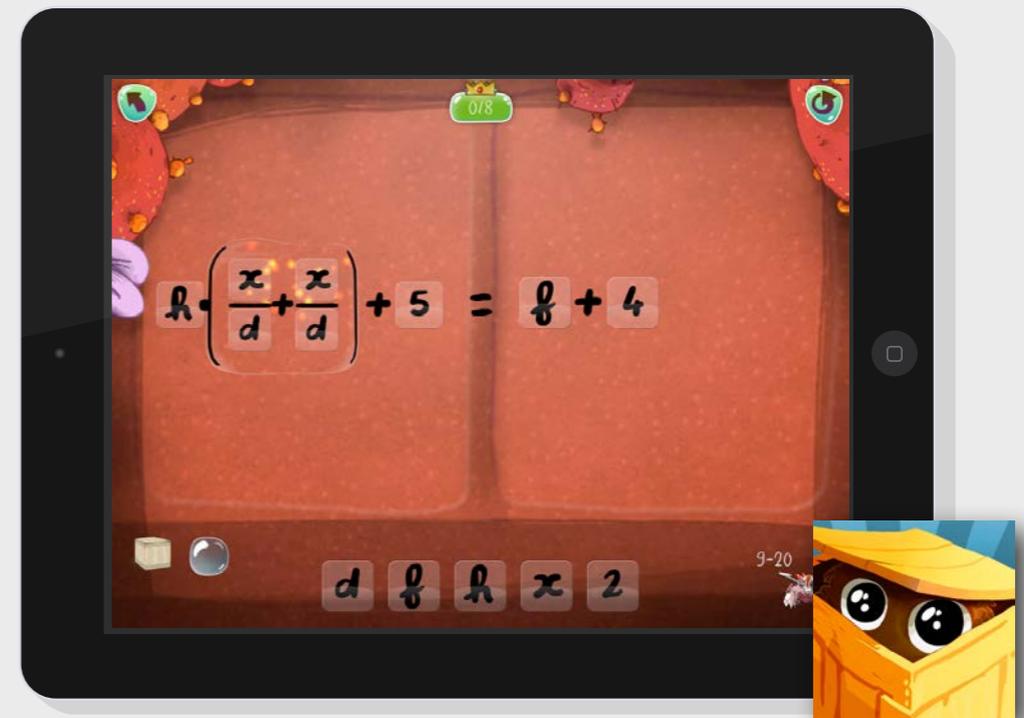
- Does it offer personalized or adaptive skill levels?
- Does it offer flexibility to customize content to meet student needs?
- Does it let users personalize the user interface?

## Featured material

### DragonBox Algebra 12+

DragonBox Algebra 12+ is a must-have tool for students so they can earn better grades and gain confidence in algebra and mathematics.

[www.dragonboxapp.com](http://www.dragonboxapp.com)





# Interaction

Deeply engaged students come alive and are more motivated. You might consider these questions when determining whether a material meets your criteria for interaction:

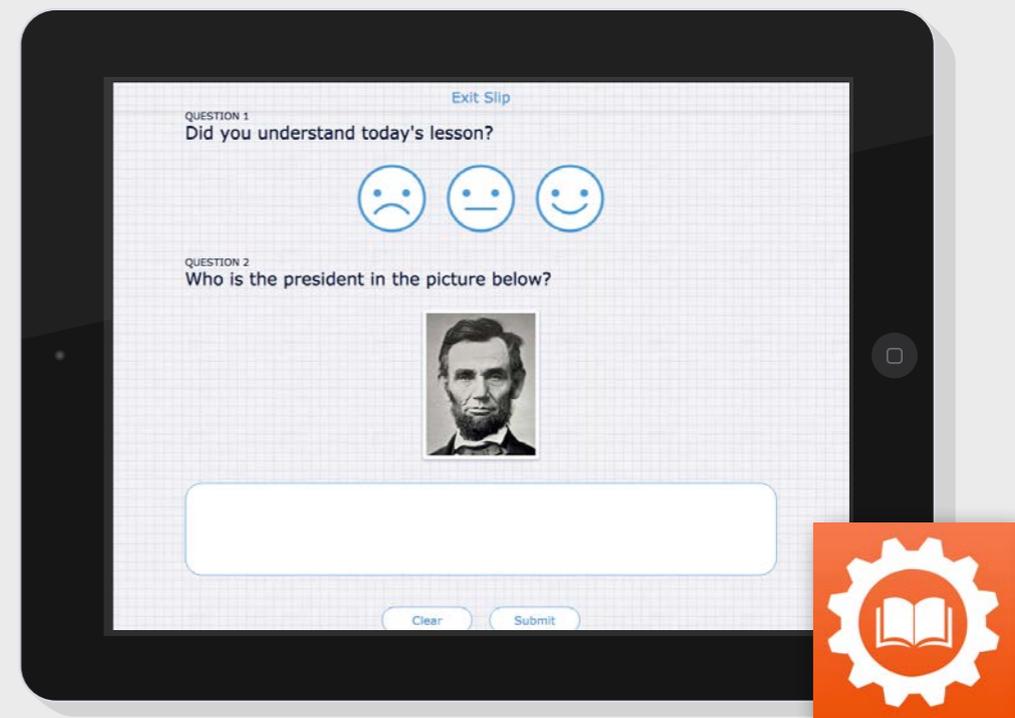
- Is the feedback specific and does it result in improved student performance?
- Is the material inviting to use?
- Are students motivated to use the tool and select it to use often?

## Example

### BookWidgets

BookWidgets is a tool that empowers teachers to create and distribute interactive exercises for iPad and Chromebook in minutes.

[www.bookwidgets.com](http://www.bookwidgets.com)





# Accessibility

Many materials can help you reach students with special learning needs to access abilities. In evaluating such materials, consider:

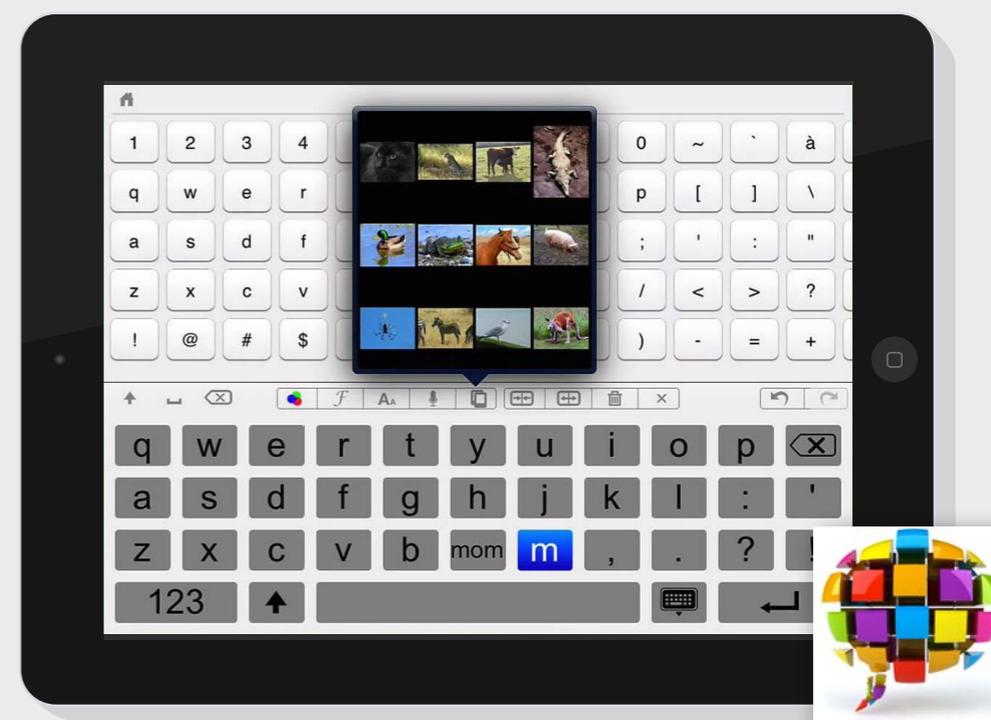
- Does the material let users personalize the user interface?
- Does the tool offer flexibility to alter settings to meet student needs?
- Does the material work with accessibility features on the mobile device?

## Featured material

### Abilipad

Abilipad lets you make custom keyboards for iPad, to help those with motor challenges type more easily. You can assign each key any letter, word, or even sentence or picture. Or merge cells to form larger keys that are easier to tap.

[appytherapy.com](http://appytherapy.com)





# Search Tips

- 1 Search for an exact word or phrase.**

Use quotes to search for an exact word or set of words. This option is handy when searching for song lyrics or a line from literature.
- 2 Exclude a word.**

Add a dash (-) before a word or site to exclude all results that include that word. This is especially useful for synonyms like Jaguar the car brand and jaguar the animal.
- 3 Search by file type.**

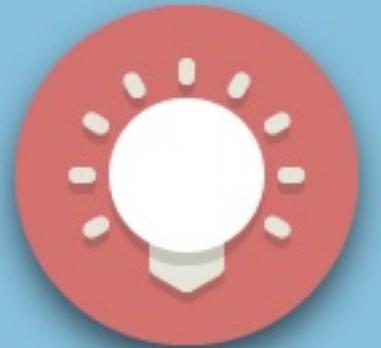
Enter your search terms followed by "filetype:PPT." This helps you to see how others have created a similar file already.
- 4 Search within a page on a computer with "command + F" or "Control + F".**

Use "command + F" or "Control + F" on the website you'd like to search. This saves you time finding the keywords within a website.
- 5 Use the advanced search menu.**

Tap or click on the gear in the top right corner of your search window to reveal the advanced search menu. This option lets you search in different languages, reading levels, filetypes,...

3

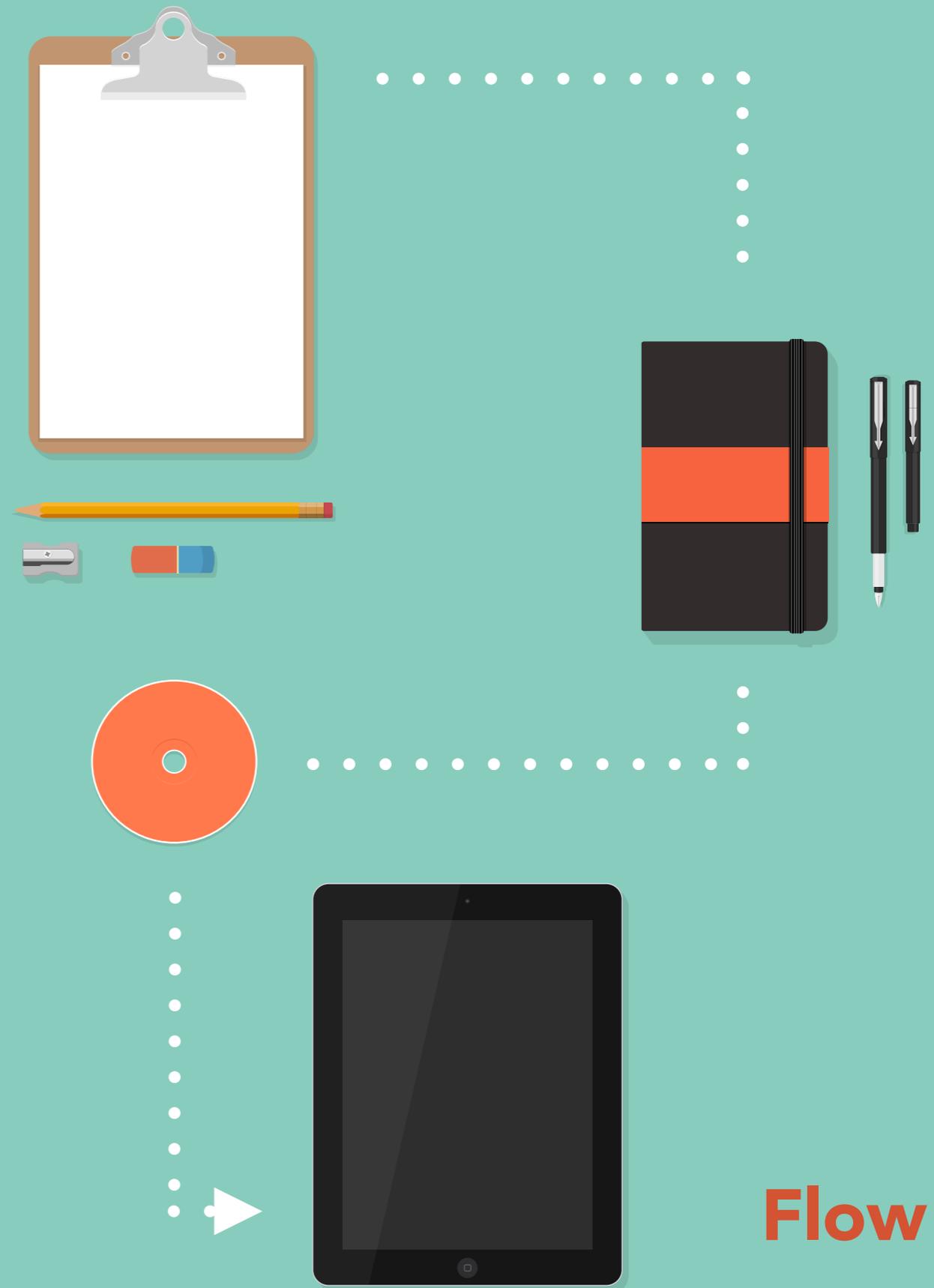
# LESSONS



## WORKFLOW

As a teacher you probably have a vault full of wonderful learning activities that have proven to be successful with students. Many of these gems can be reinvented, remixed, and transformed into lessons that will be even more engaging and applicable to today's learners.

In this chapter we offer you lesson ideas from the classroom by teachers who took their existing lesson and transformed it with a simple touch on a mobile device.





# Workflow

How to turn a paper lesson into a digital experience.

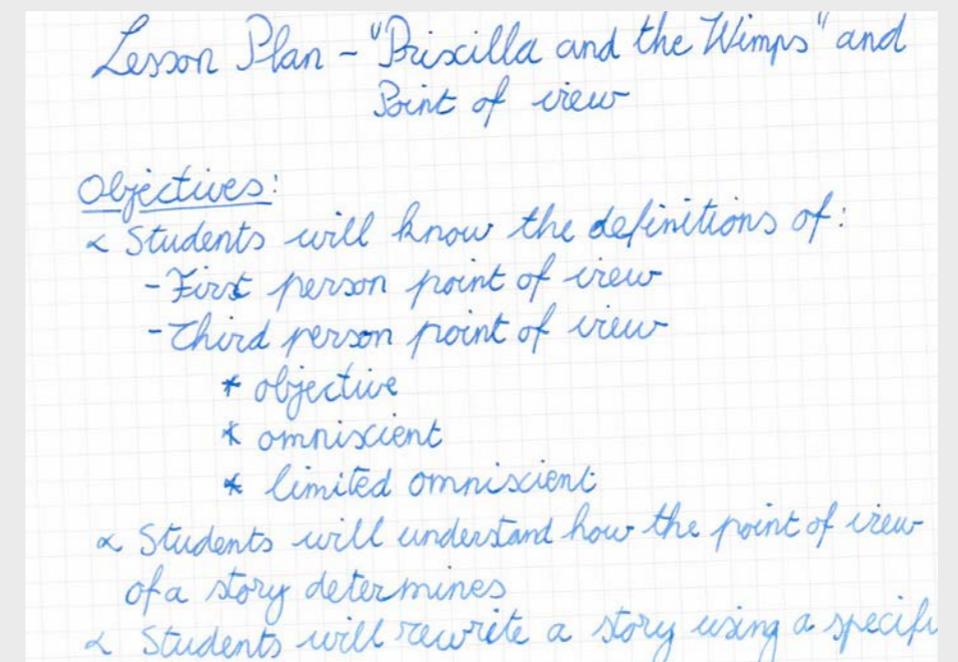
## 1 LOCATE

Find that one lesson that you are particularly passionate about. This can be a full lesson or a series of lessons or just one activity that makes you so enthusiastic.

### Example

#### "Priscilla and the Wimps" and Point of View

This lesson is about the different points of view and how they determine a story.





## 2

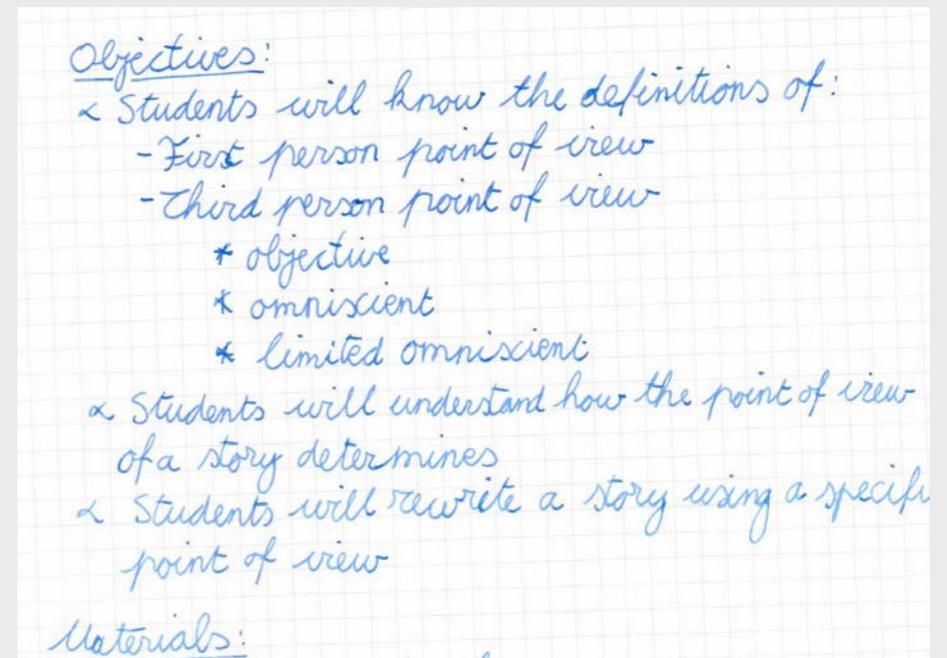
## DETERMINE

Read your lesson. Go through the whole activity and determine the goals.

- What must students understand?
- What do you want them to be able to do at the end of your lesson?
- How can they prove learning?

**Example****“Priscilla and the Wimps” and Point of View**

Students need to understand how the point of view of a story determines how you “see” and “hear” what is going on. To prove this they will rewrite a story using a specific point of view.





## 3

## ANALYZE

Have a critical look at every part of your lesson. Analyze it step by step and determine the challenges.

- Where are the roadblocks for the students?
- Where would you like more time to cover a part of the lesson?
- How can you reach all learners and differentiate?

**Example****“Priscilla and the Wimps” and Point of View**

The lesson is broken down in simple steps. Here I determine the structure of the lesson and look for hurdles.

Where can I enhance this lesson?

Agenda:

- Display stuffed animal on a desk in the center of room and ask students to describe (in writing) the stuffed animal exactly how they see it. (5 min.)
- Have multiple students share what they wrote and have students to discuss the differences in the responses.
- Have students make a prediction in writing: What activity have to do with the point of view from which the story is told? First they discuss with neighbors, then class. (5 min)



## 4 INTEGRATE

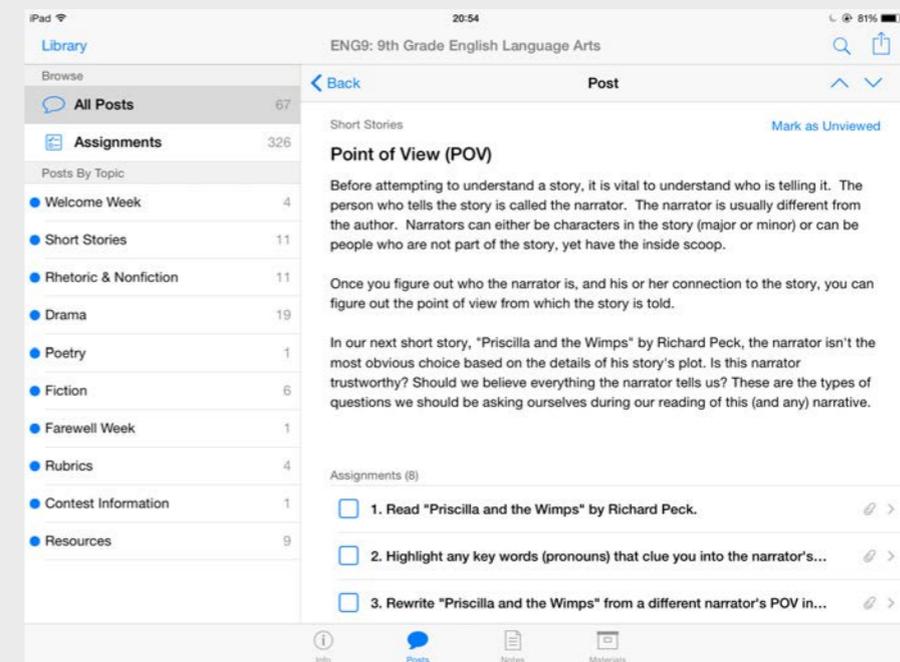
Select a learning material and integrate it into your workflow. Remember, keep it simple!

- How can the tool help students overcome the roadblocks?
- Where can the material have the most effect?
- How can students gain better insight of the content?

### Example

#### “Priscilla and the Wimps” and Point of View

First I look for ways to substitute the original steps of the lesson plan into digital format. Just a simple substitution. By designing for a mobile device user, I realize different options are available. Gently, I start redefining the lesson.





## 5 REVIEW

Before delivering your one best lesson, ask your peers for a review. Reach out to your professional learning network and ask for constructive feedback.

- Who can help you with genuine feedback?
- Was the integration of technology an added value?

### Example

#### “Priscilla and the Wimps” and Point of View

After the lesson is finished, colleagues in the English department will review the structure and ask the hard questions. Is the technology an added value? What are other options?

Next the lesson is adjusted and used in the classroom.

The last step is feedback from the students. What was the user experience?





### **Lesson plan - "Priscilla and the Wimps" and Point of View**

Display stuffed animal on a desk in the center of the room and ask students to describe (in writing) the stuffed animal exactly how they see it. (5 minutes)

Have multiple students share what they wrote and then ask students to discuss the differences in the responses. (5 minutes)

Have students make a prediction in writing (5 minutes)

Pass out the definition sheet and have different students read the different definitions of the different points of view. Ask students for examples of each. (5 minutes)

Read "Priscilla and the Wimps" out loud as a class. (10 minutes)

Lead a discussion on this question – how does the point of view from which the story is told affect the story...? How would the exact story be different, if told from a different point of view? (5 minutes)

For an exit ticket, have students answer this question in writing: How does the opening activity connect to the idea we just talked about? (5 minutes)



### Lesson plan - "Priscilla and the Wimps" and Point of View

Read "Priscilla and the Wimps" by Richard Peck. [Link to PDF file.](#)

Highlight any key words (pronouns) that clue you into the narrator's POV. [Use Notability.](#)

Rewrite "Priscilla and the Wimps" from a different narrator's POV in Docs. [Use Google Docs.](#)

Submit your Google Doc to Google Classroom. [Use Google Classroom.](#)

Record your story using images and background music. [Use Adobe Voice.](#)

Read an exemplar rewrite of the story. (Whose POV is utilised?) [Link to PDF file.](#)

Watch an exemplar presentation for more inspiration! [Link to video file.](#)

Respond to this question: How does POV affect your understanding of a story. [Use So-crate.](#)



Languages  
Speaking



Mathematics  
Geometry



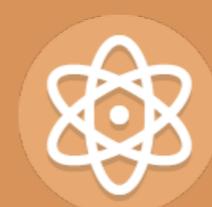
Science  
Chemistry



Languages  
Writing



Mathematics  
Algebra



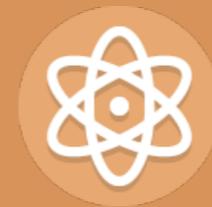
Science  
Physics



Languages  
Vocabulary



Mathematics  
Basics



Science  
Biology

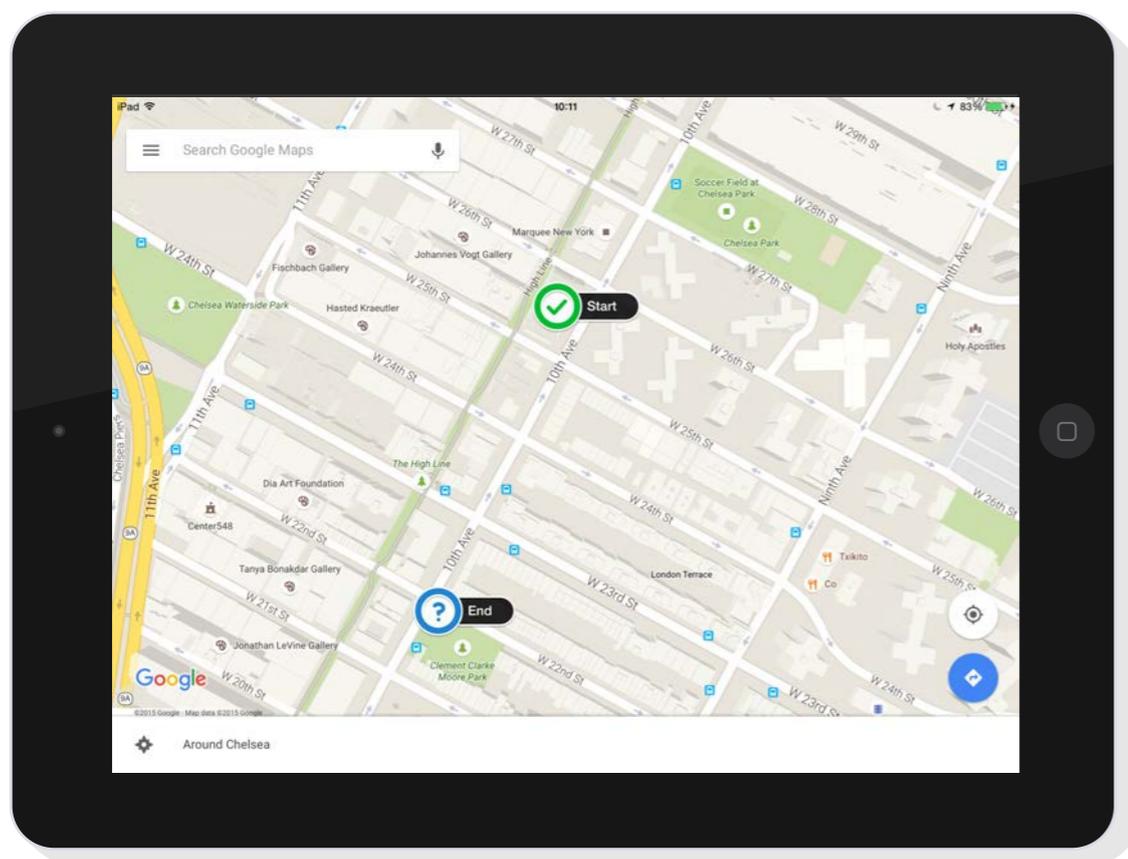
LANGUAGES





## WHERE IN THE WORLD IS ...?

Students will record an explanation of directions to a certain location in another language and then let other students draw this on a map.



### OBJECTIVE

Learning another language takes a lot of practice. During this activity students will guide their fellow travelers to a location. First they make a screenshot of the location in Google Maps. Then they mark the start and end point. Next they will record the directions in the other language. Then share with a partner.

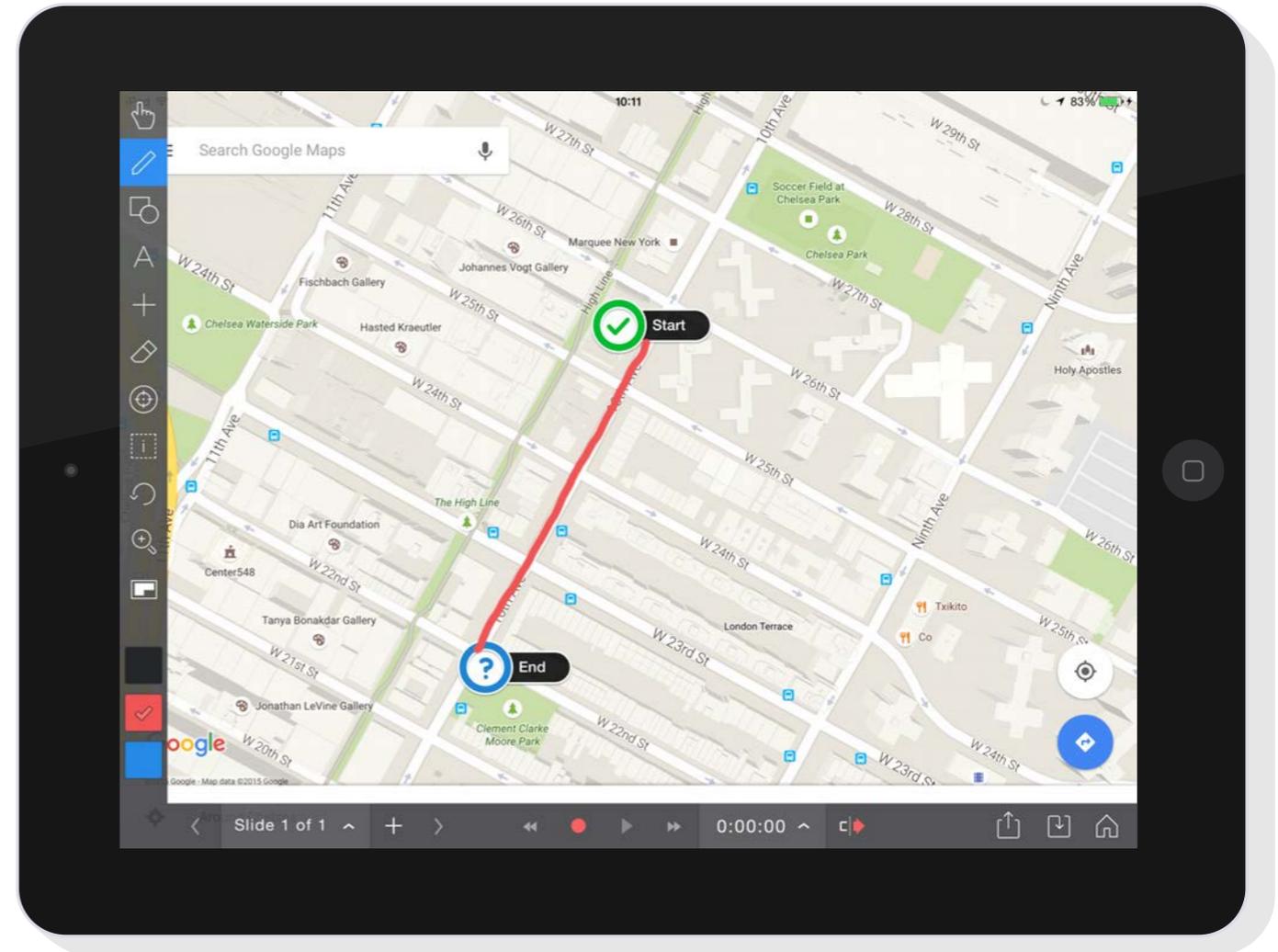
### OVERVIEW

<b>Topic</b>	Dialogue practice
<b>Target age</b>	12+ years old
<b>Time to complete</b>	2 class periods



## ACTIVITY

- 1 Have students search for a starting point in the city using Google Maps.
- 2 Have them take a screenshot of the map.
- 3 In Explain Everything they will mark the start and end point and then record the directions from A to B in the foreign language.
- 4 Next the students will share their project with a partner. The partner will now draw the directions on top of the map as described.



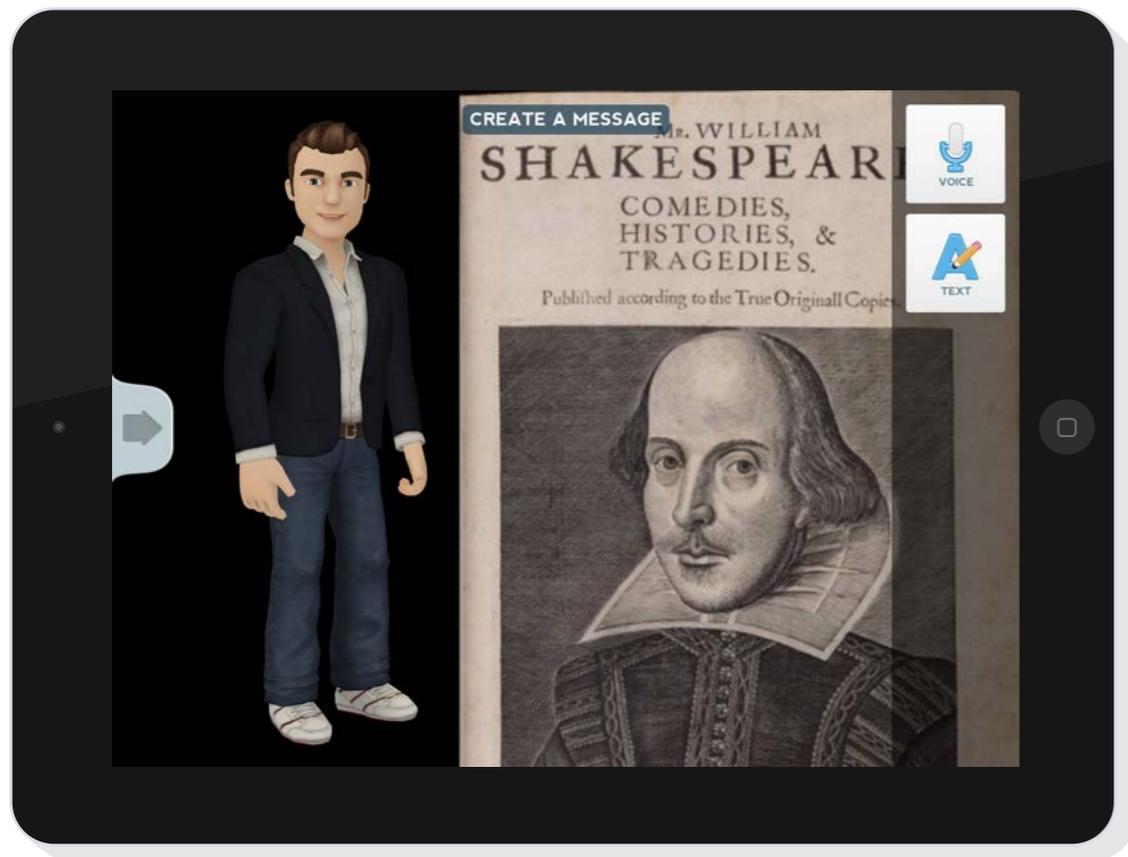
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## BOOK REPORT

Students will read a book and create a video teaser trailer to invite other students to read the same book.



### OBJECTIVE

---

This activity allows students to prove evidence of reading by creating a video trailer and an interactive quiz in Kahoot! or BookWidgets. When working with a digital copy of the book they highlight their favorite quotes or phrases immediately.

### OVERVIEW

---

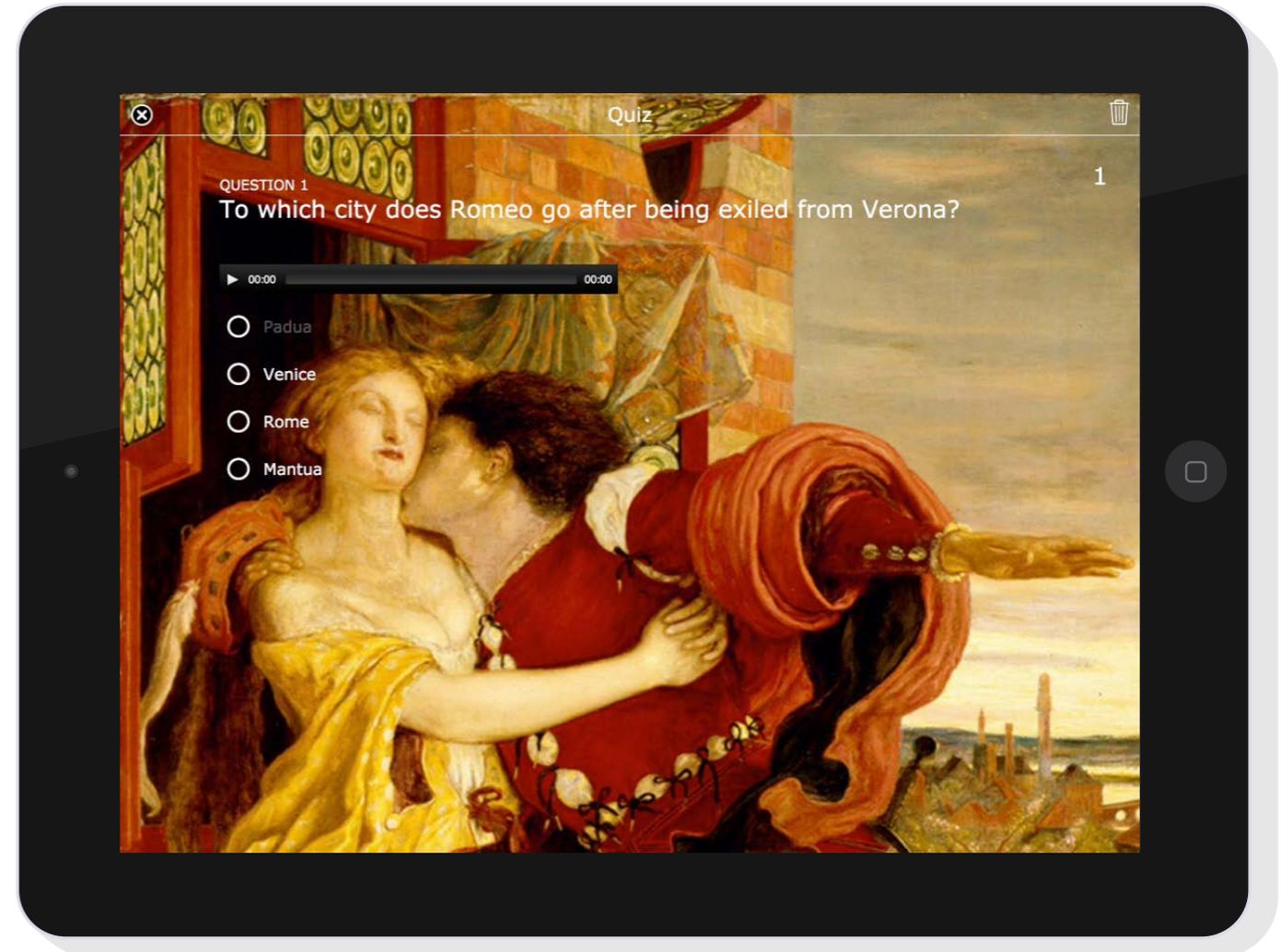
<b>Topic</b>	Book report
<b>Target age</b>	12+ years old
<b>Time to complete</b>	2 or 3 class periods



## ACTIVITY

---

- 1 Have students select a book (paper or digital) from a list suggested by the teacher and fellow students.
- 2 Students write a short summary and describe one of the characters. They highlight their favorite phrases or quotes from the book.
- 3 Have students create a video teaser trailer to invite other students to read this book. Next they will add a small quiz at the end to challenge the next reader.
- 4 Students share their videos with each other.



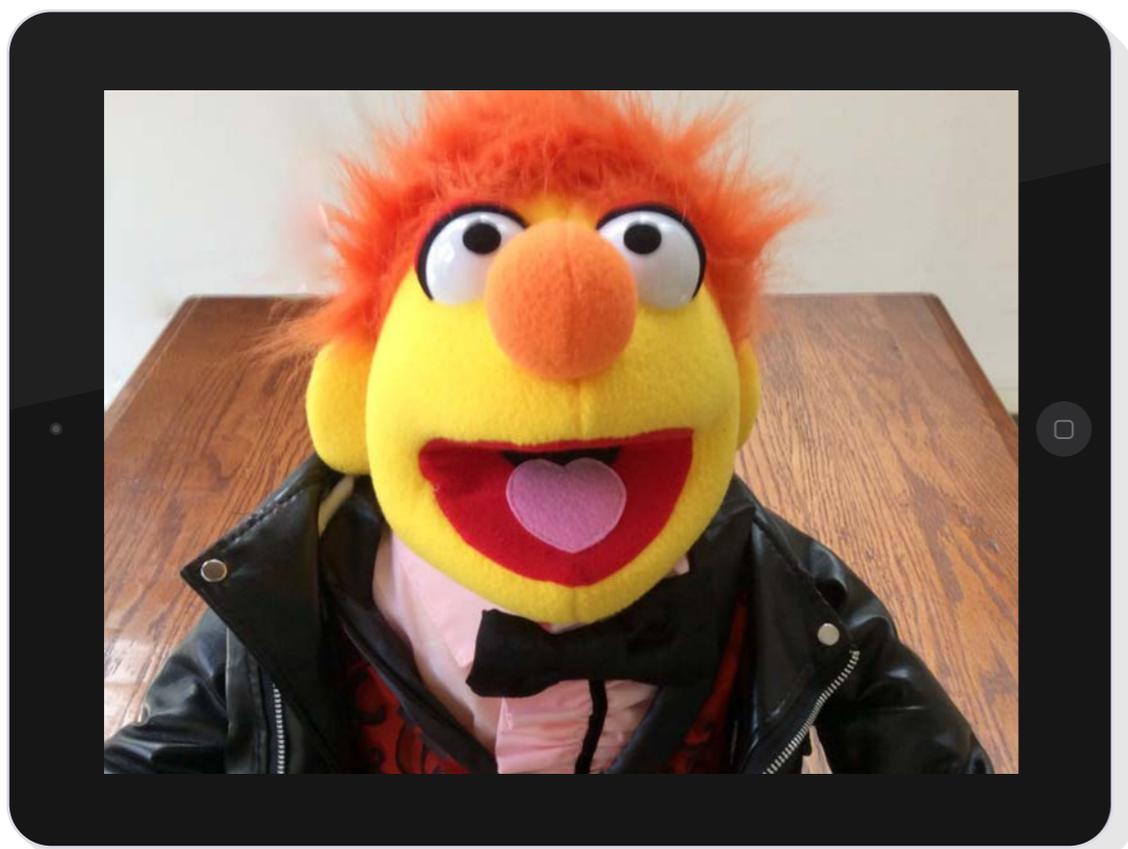
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## VISUAL DICTIONARIES

Students will create a visual dictionary to teach other students the vocabulary linked to a topic.



### OBJECTIVE

---

This activity allows students to capture words through images from their surroundings, linking an image, text and spoken word together. Students will use the camera in the app Book Creator to take pictures of items linked to the vocabulary package. Afterwards they will record the pronunciation of the word in the picture and write it down.

### OVERVIEW

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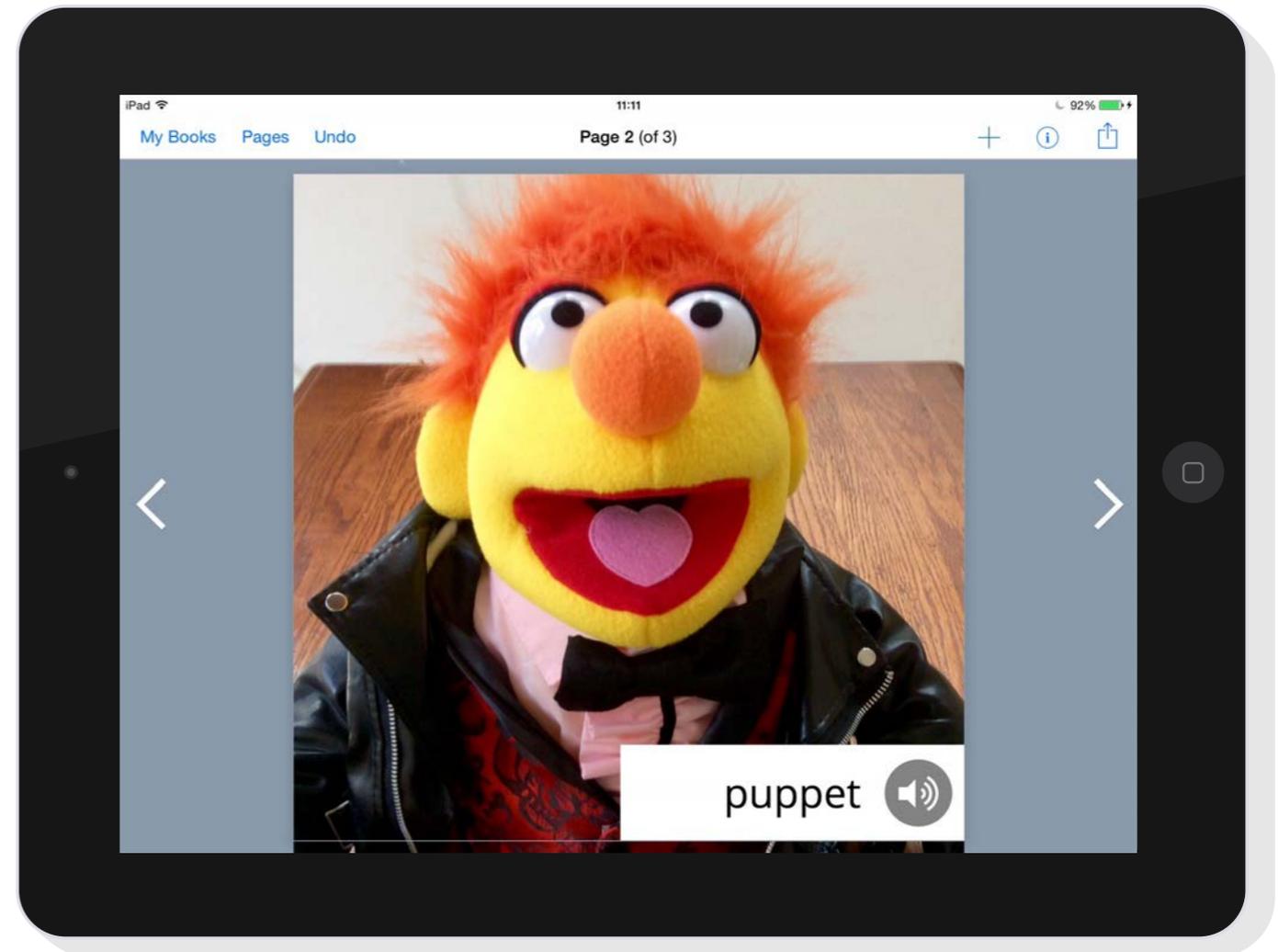
<b>Topic</b>	Vocabulary
<b>Target age</b>	6+ years old
<b>Time to complete</b>	2 class periods



## ACTIVITY

---

- 1 Have students open Book Creator, work in pairs to look around and take pictures of vocabulary words in the lesson.
- 2 When they have found all the word, they will write the word down on each image in their book.
- 3 The next step is to practice saying the words with your partner. Next record the pronunciation of the word in the Book Creator book.
- 4 Have students present their work to the rest of the classroom.
- 5 Let the students play a vocabulary game with their pictures afterwards.



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MATH





## SHAPES AND SOLIDS

Students search for examples of different shapes and solids around their classroom or school, take pictures and then create a poster of their findings.



### OBJECTIVE

---

This activity helps students understand the connection between shapes and solids. Students will use the camera to take pictures of items in the classroom. They import the images, trace and name them, and share them on a poster with the class.

### OVERVIEW

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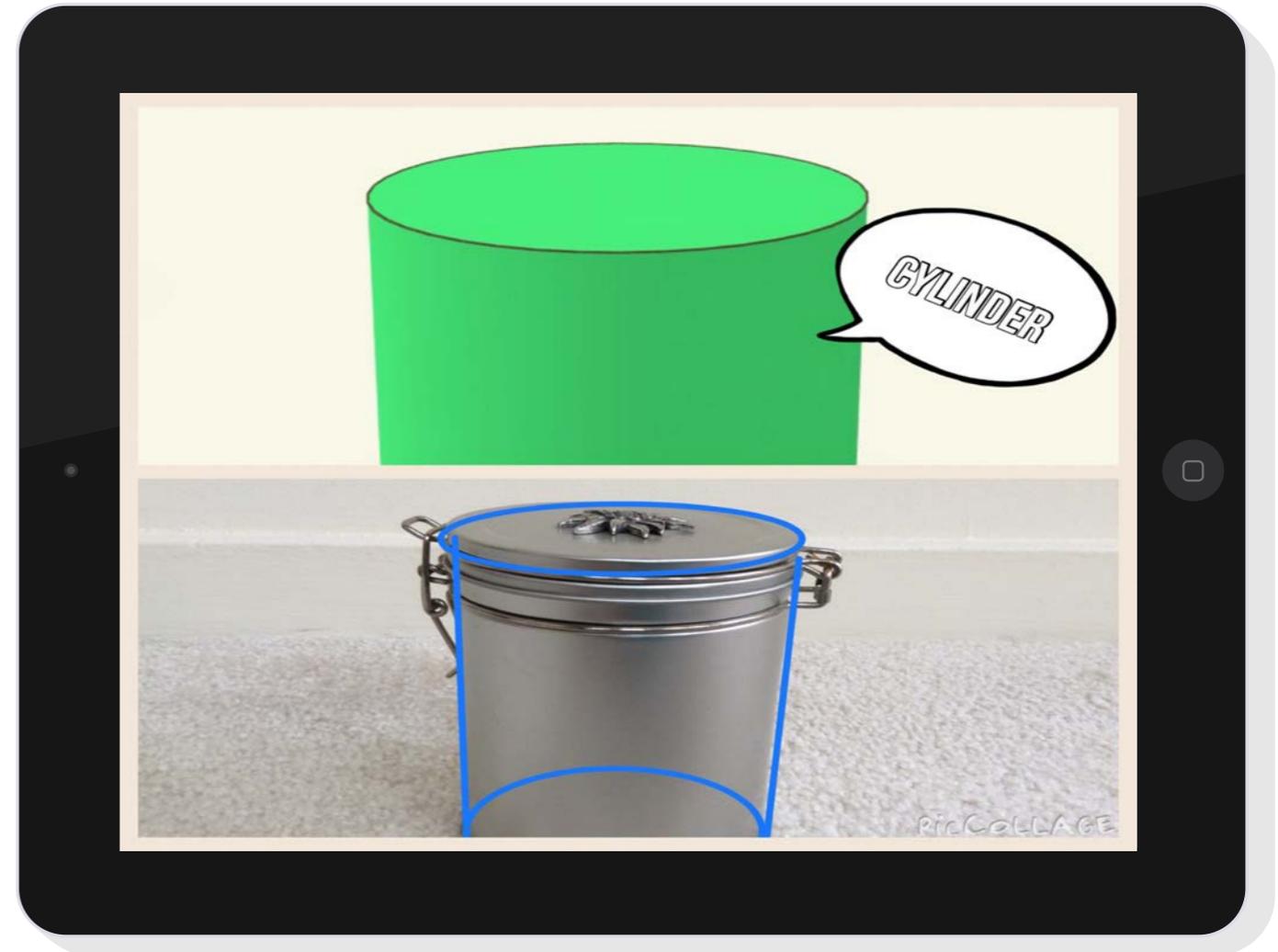
<b>Topic</b>	Shapes and solids
<b>Target age</b>	10 to 12 year olds
<b>Time to complete</b>	1 class period



## ACTIVITY

---

- 1 Have students play a geometry pairing game where they have to match shapes together to each other.
- 2 Students watch a video about different 3-D figures and receive the challenge to hunt for these different shapes in the classroom.
- 3 Students take pictures of the shapes.
- 4 In Skitch they trace the different shapes that they see in each solid and name them.
- 5 Students create a poster and share their examples with each other and discuss.



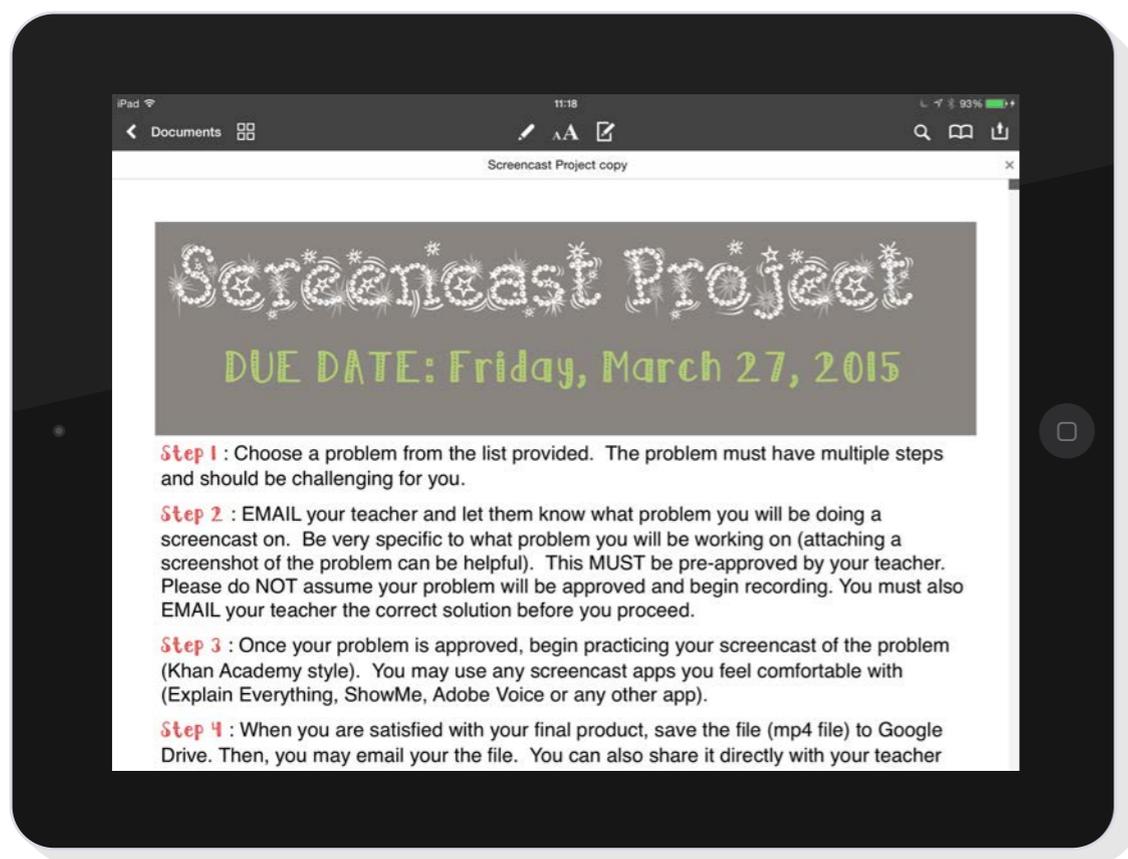
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## THE SCREENCAST PROJECT

Students will create an instructional video to teach other students how to solve a linear equation.



### OBJECTIVE

---

This activity pushes students to a higher level of learning by explaining the learning. They select a challenge and demonstrate their knowledge and skills in solving linear equations. To make a good instructional video they write a short script and finally produce a quiz to see the effects of their instructions.

### OVERVIEW

---

Topic	Linear equations
Target age	12 to 14 year olds
Time to complete	3 class periods



## ACTIVITY

- 1 Have students choose a problem from a list provided by the teacher.
- 2 Students will e-mail the teacher with their choice.
- 3 Have the students watch an example lesson from Kahn Academy.
- 4 The students write a script, practice and record the video.
- 5 Have the students create a quiz in Kahoot! or BookWidgets to challenge the other students after sharing their video.

**KEYSTONE SCREENCAST PROJECT TOPICS AND QUESTIONS:**

Topic: Linear Equations - Equation Solving Process  
Solve the equation  $2(x - \frac{1}{2}) = 3(5 - 2x)$ . Show the steps and explain your solutions.

Topic: Linear Equations - Write, Solve, Apply

**Arko Equipment Sales**

Sally has been asked to write an equation for the line shown here, which approximates the sales data in the scatterplot.

She decides to use the second point, (2, 1600), and the last point, (10, 2100). What is the equation of the line in slope-intercept form?

Show your work.

Slide 1 of 6

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## TIME TABLES RAP

Students will record a song about a multiplication table to help other students to memorize them.



### OBJECTIVE

---

Recording a song about a multiplication table will help the students to memorize them. During this activity the students practice a multiplication table and share their result with the rest of the classroom. Struggling students will get a playlist of each times table to choose from. Leaving out blank spots turns the song into a karaoke quiz.

### OVERVIEW

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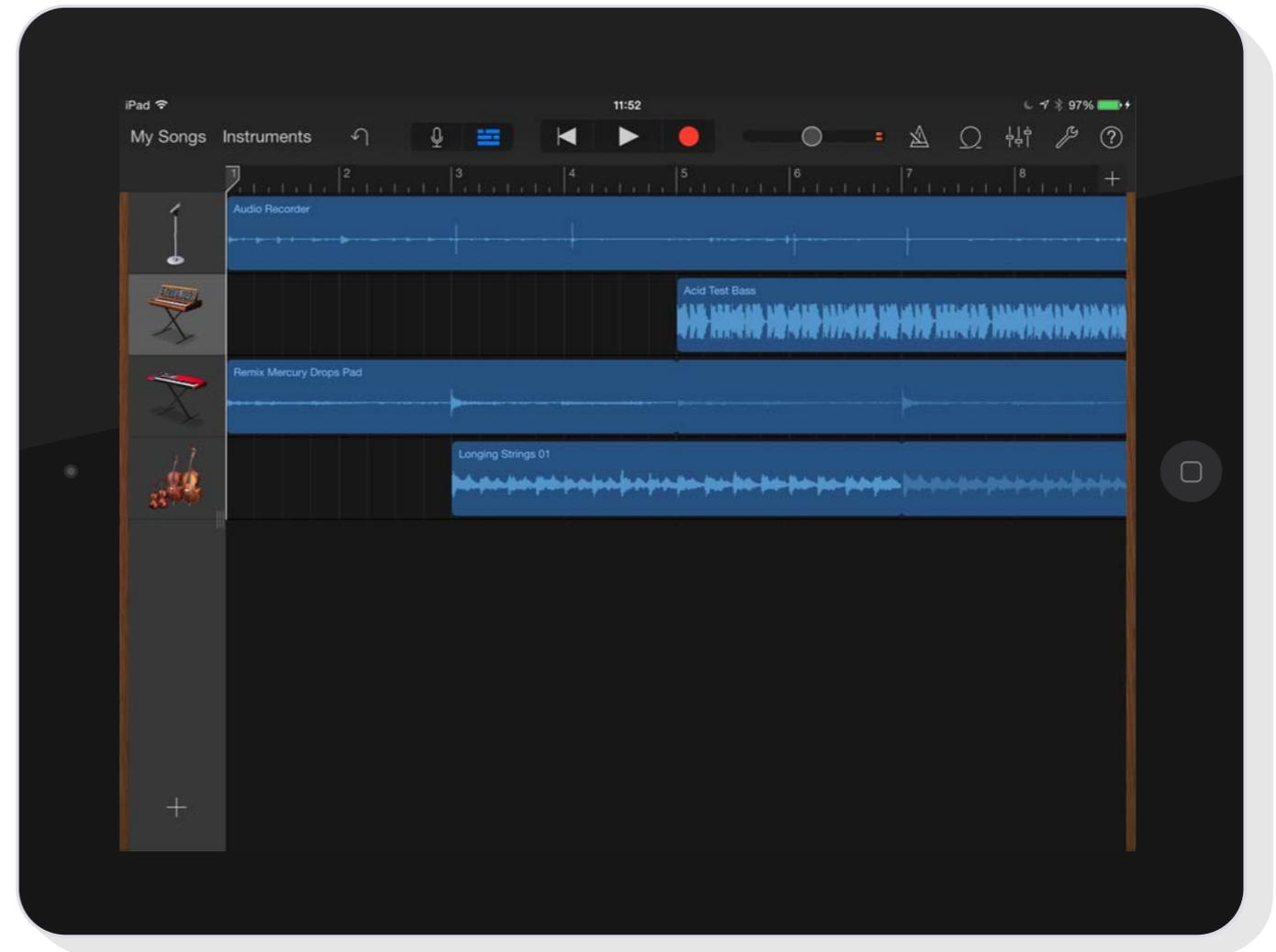
<b>Topic</b>	Time tables
<b>Target age</b>	7 to 8 year olds
<b>Time to complete</b>	2 class periods



## ACTIVITY

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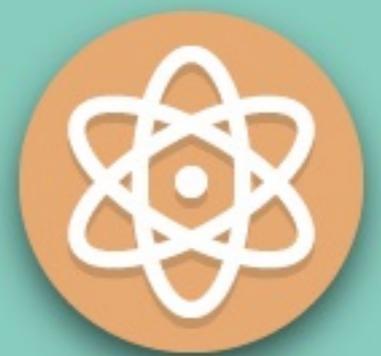
- 1 Students take a quiz on the tables of multiplication.
- 2 The table that causes a problem will become the one where they have to make a song about.
- 3 Have students select a royalty free beat or compose their own song using loops. On top of this basic track they will sing the times table.
- 4 Students will export their song and share it on a playlist with the rest of the classroom.
- 5 Students retake the quiz and compare results.



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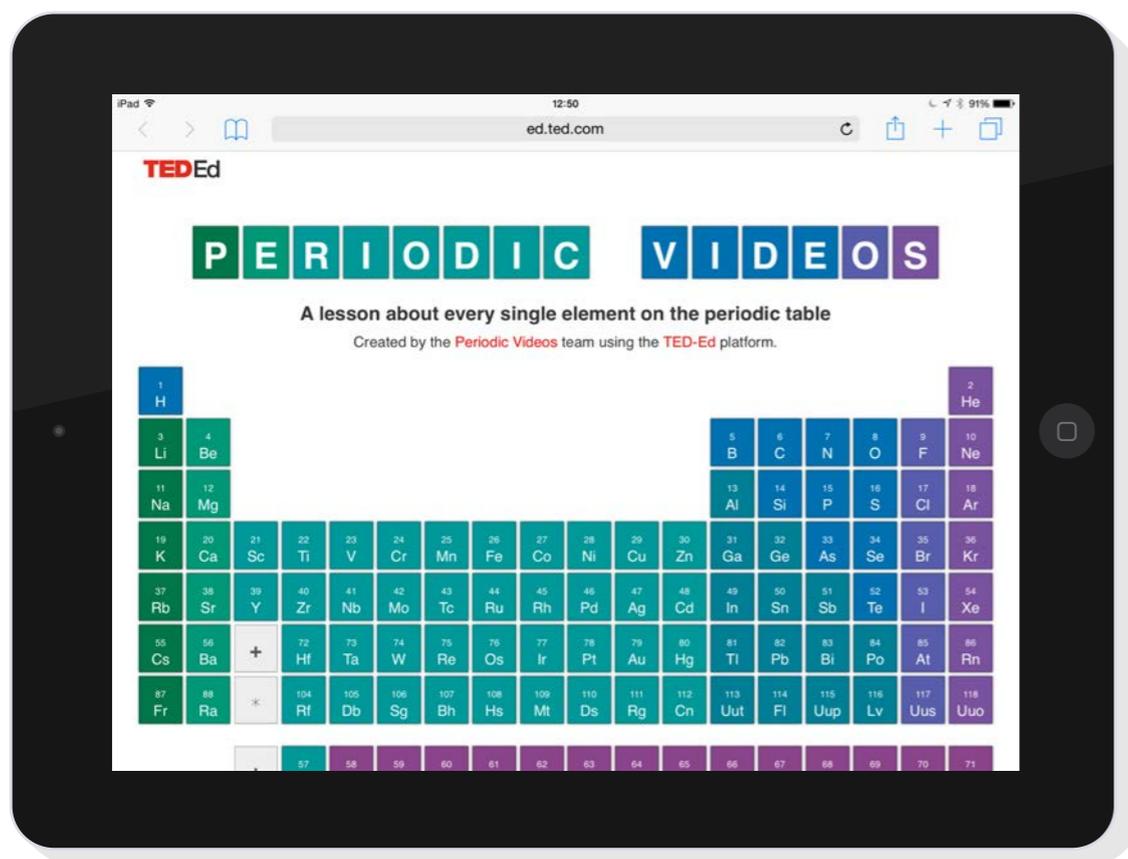
SCIENCE





## PERIODIC TABLE TRADING CARDS

Students will create trading cards about the elements in the Periodic Table and then play a game to understand groups.



### OBJECTIVE

The Periodic Table is like a road map to chemistry. Understanding the elements and the groups they belong to is essential to making chemical bonds. During this activity students explore the elements and summarize their characteristics on a trading card. The cards will be used during evaluation to learn about the groups they belong to.

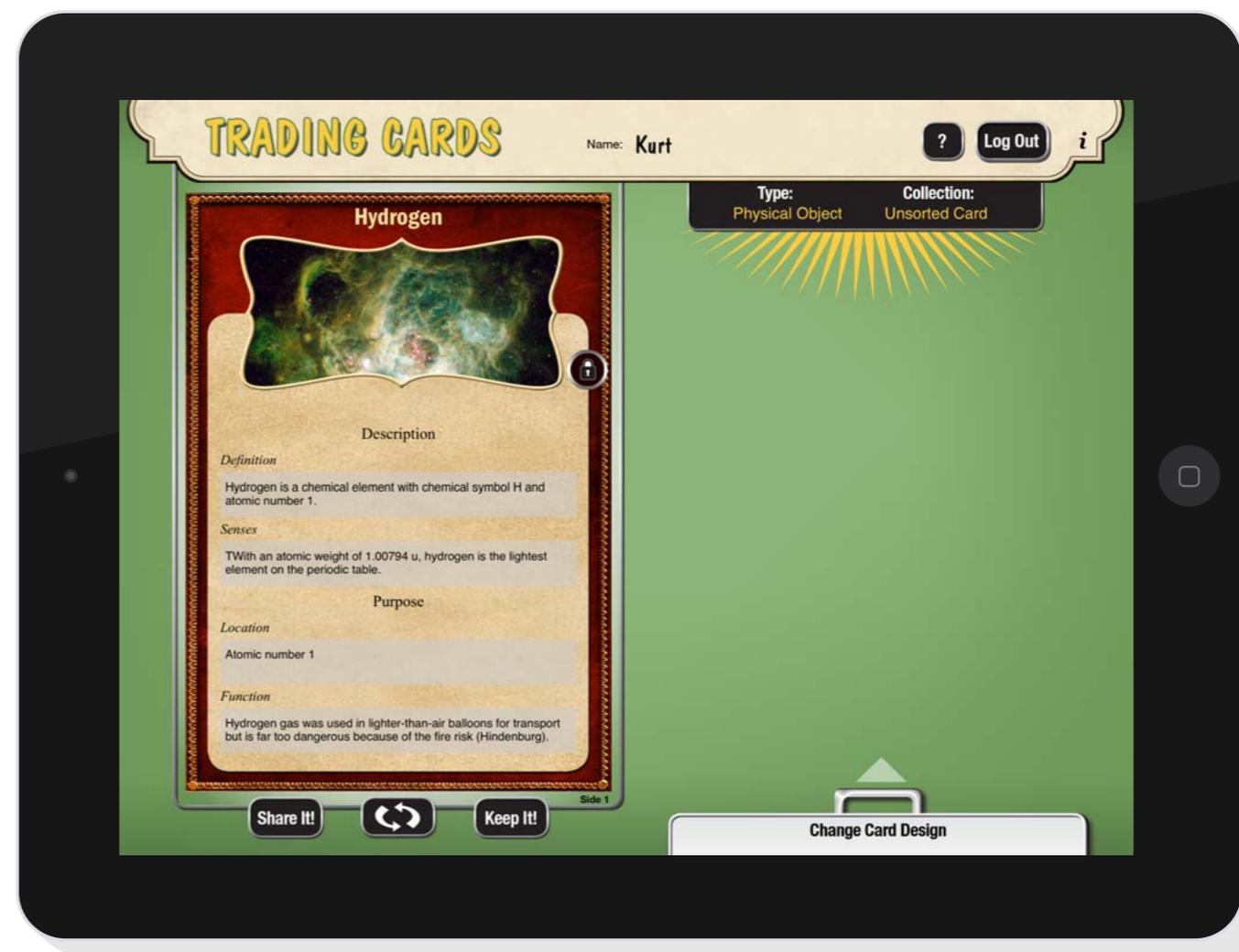
### OVERVIEW

<b>Topic</b>	Periodic Table
<b>Target age</b>	14 to 15 year olds
<b>Time to complete</b>	2 or 3 class periods



## ACTIVITY

- 1 Students explore the Ted Ed Interactive Periodic Table.
- 2 With this information they create Period Table trading cards synthesizing the elements and grouping them.
- 3 Have the students share their results and play a grouping game with the cards.
- 4 In the next lesson the cards will be used to explore chemical bonds.



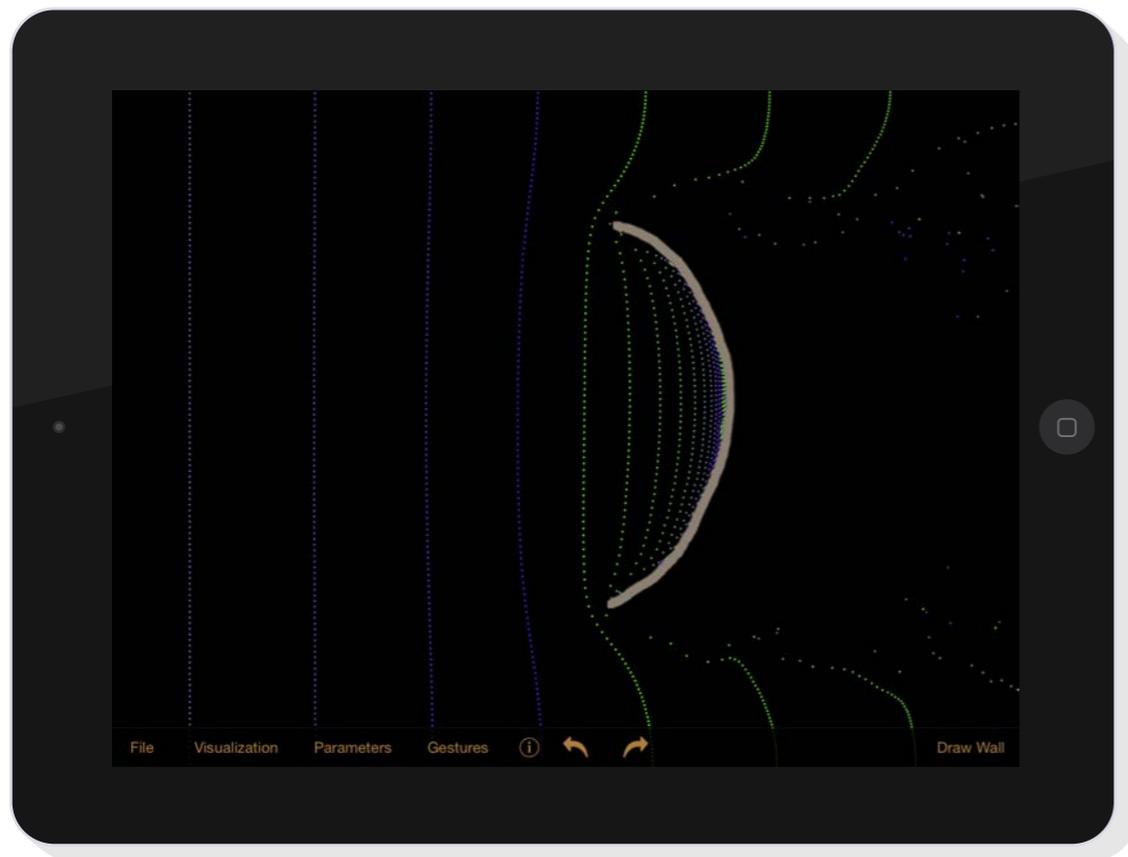
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## TAKING IT TO THE SKY

Students will present their research to teach other students what they know about designing parachutes and the movement of air.



### OBJECTIVE

---

During this activity the students formulate an answer to the question: “Which parachute design is the safest to jump out of a plane?”. They will record the experiment and time the drop. The results are imported into their presentation and shared with the classroom. Afterwards they use the reflection booth to comment on their outcome.

### OVERVIEW

---

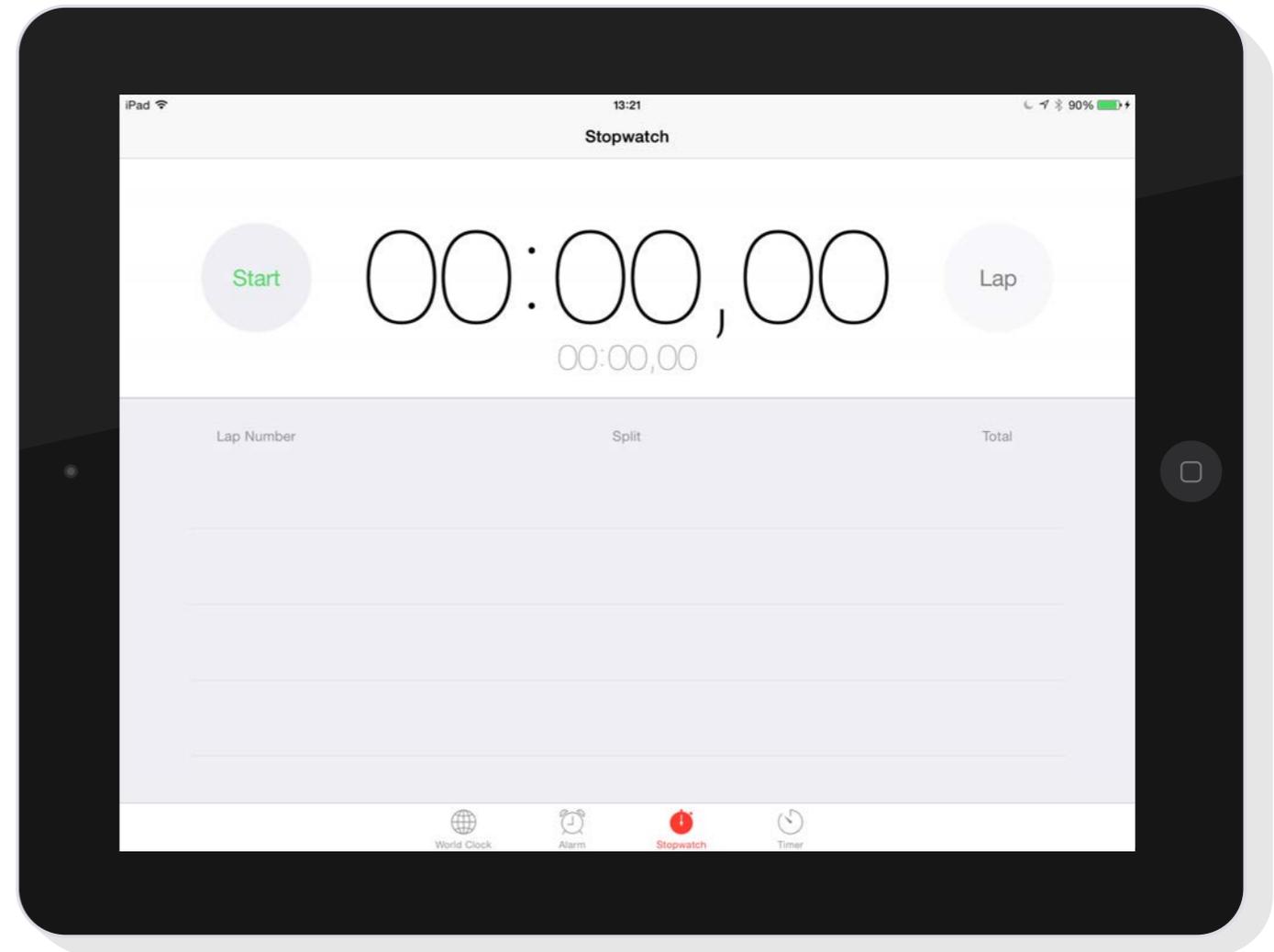
<b>Topic</b>	Gravity
<b>Target age</b>	12 to 14 year olds
<b>Time to complete</b>	2 or 3 class periods



## ACTIVITY

---

- 1 Have students make a hypothesis about the three shapes of parachutes (square, triangle or semi-circle). Which one is the safest to jump out of a plane?
- 2 Students use the Wind Tunnel app to simulate the flow of air depending on the shape.
- 3 Using three different parachutes provided, have students drop a teddy bear three times from the same height. Meanwhile the remaining students record and time the fall.
- 4 The videos and timings are imported into a presentation and shared with the class.
- 5 Afterwards the students record a reflection.



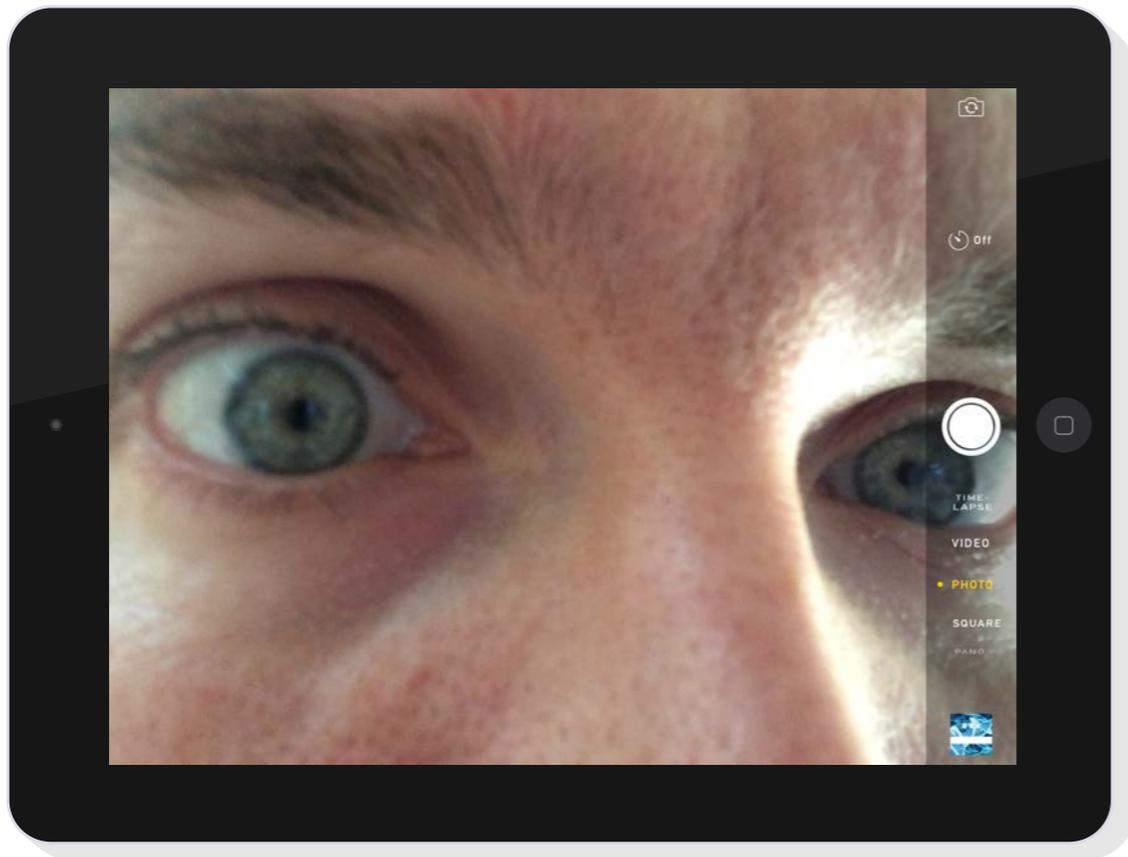
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## THE COLOR OF YOUR EYES

Students will become researchers when they use their mobile device to investigate the possibility of the color of the eyes of their children.



### OBJECTIVE

---

Scientists have discovered all kinds of relationships through research. During this activity, students will become real researchers and investigate the possibilities of the color of eyes. They will use a flipped classroom model to learn about the topic. Based upon their results they will record a reflection and share it with their fellow scientists.

### OVERVIEW

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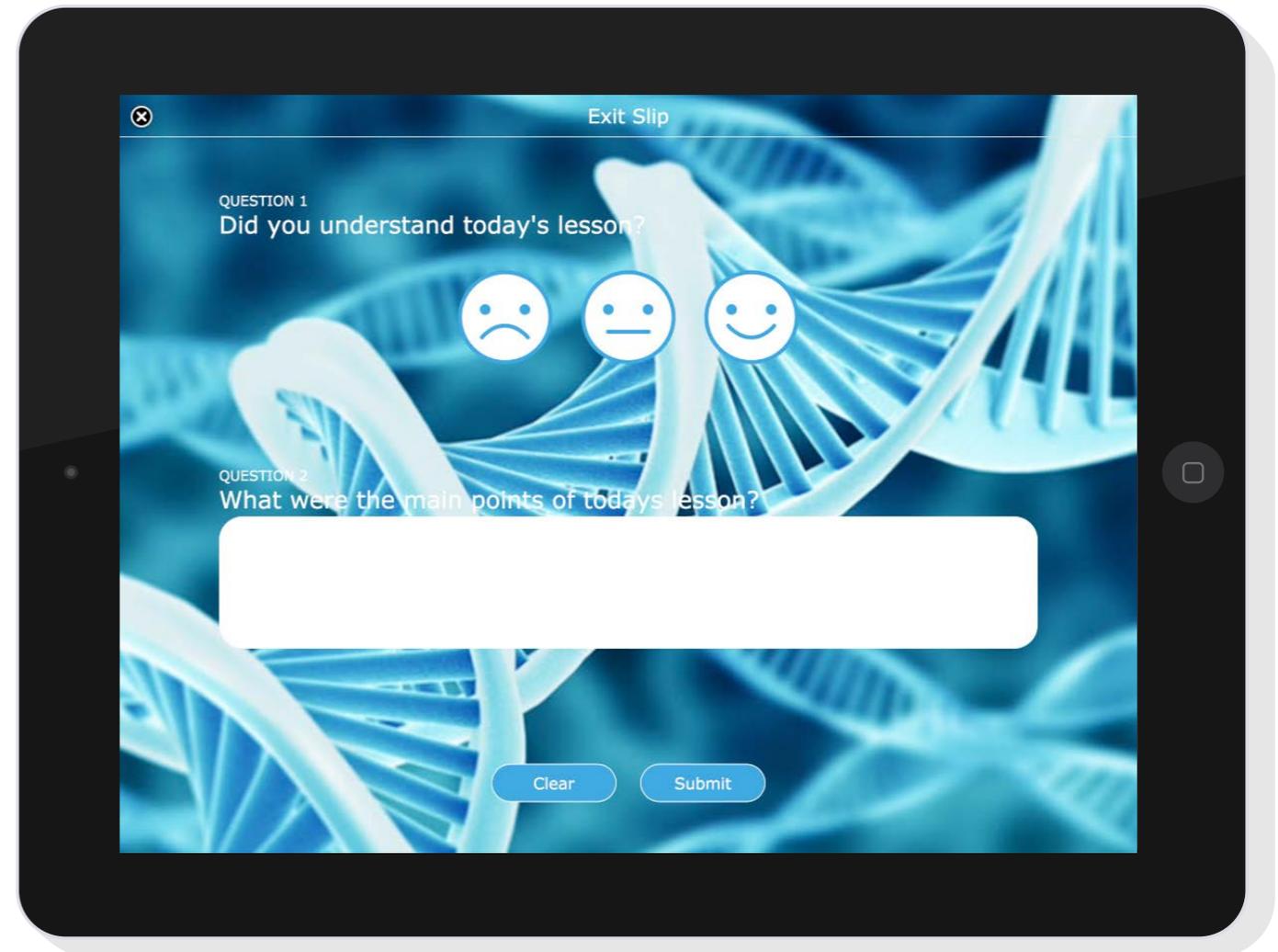
<b>Topic</b>	Genetics
<b>Target age</b>	16 to 18 year olds
<b>Time to complete</b>	2 class periods



## ACTIVITY

---

- 1 Students watch an instructional video on the genetics of eye color.
- 2 Have students take photos of each others eyes.
- 3 Students add the combinations in the Punnett rubric. Their results will be transferred to a presentation.
- 4 The presentation gets imported to Explain Everything and the students add their reflections on every slide.
- 5 Have the students fill in an exit slip widget.



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4

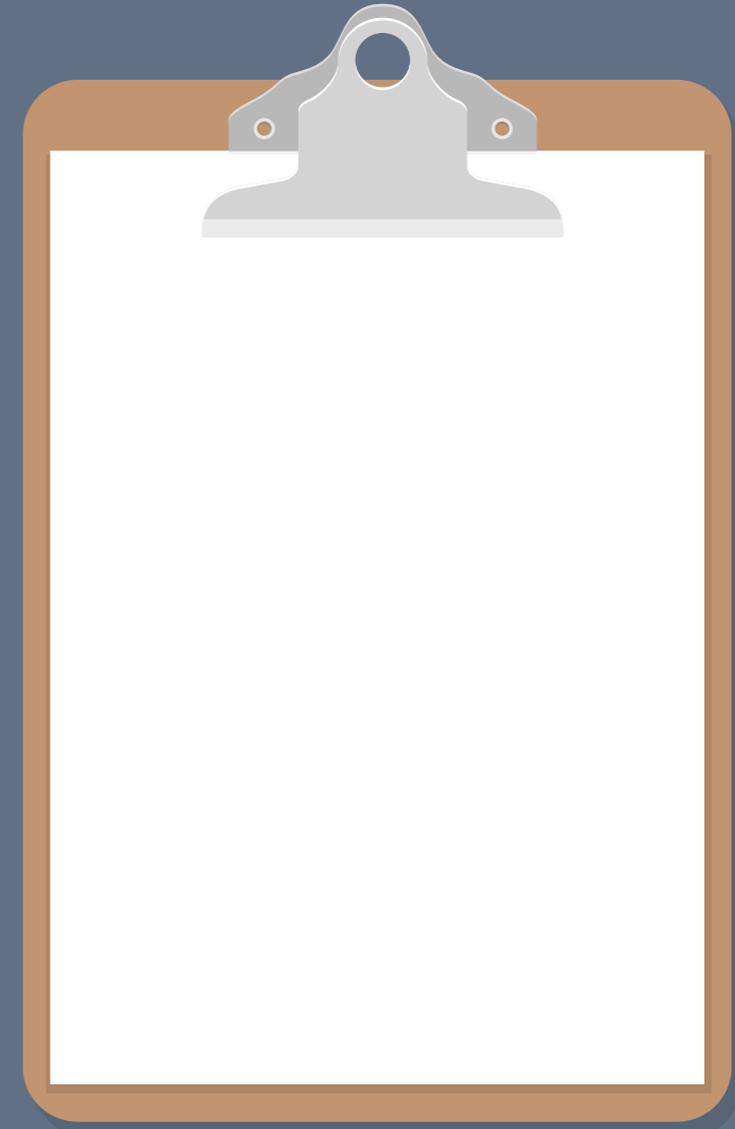
# CHECKLIST



## CHECKLIST

The examples and guiding questions from the previous chapters led to the creation of this rubric, [www.learninggrader.com](http://www.learninggrader.com). A tool that can help as you begin to integrate learning materials for mobile devices into your classroom.

The inspiration for this **checklist** (with modifications by Tony Vincent) came from Harry Walker who created a rubric for evaluating educational apps in 2010.





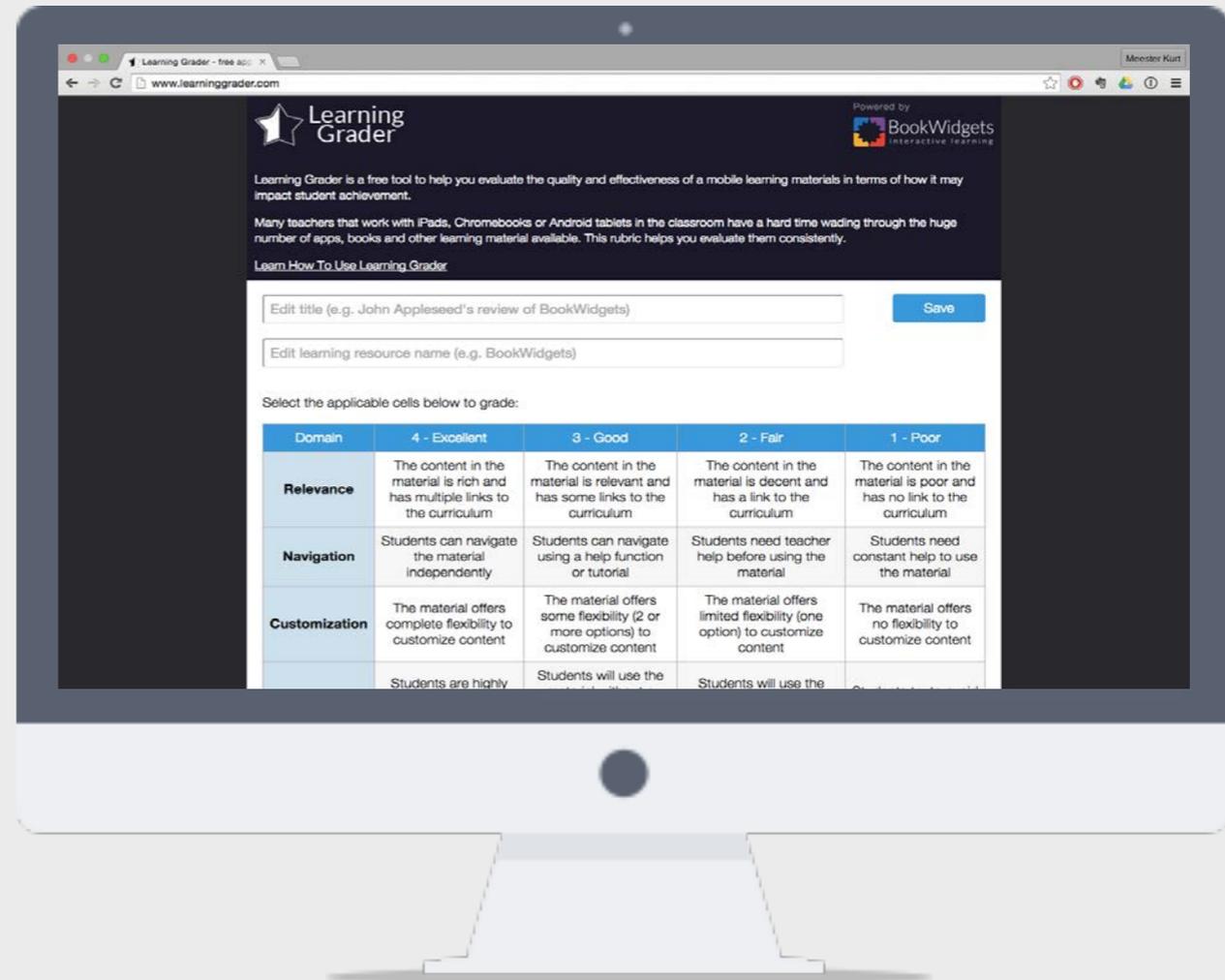
# Learning Grader



## Rubric

Learning Grader is a free tool to help you evaluate the quality and effectiveness of a mobile learning material.

[www.learninggrader.com](http://www.learninggrader.com)



5

# INTERVIEWS



## LUIS PÉREZ

Luis Pérez received his doctorate in special education and a Master's in instructional technology from the University of South Florida. He is the author of *Mobile Learning for All: Supporting Accessibility with the iPad*, from Corwin Press. In recognition of his accomplishments in the field of educational technology, Luis was selected as an Apple Distinguished Educator (ADE) in 2009 and as a Google in Education Certified Innovator (formerly Google Certified Teacher) in 2014. He is the Professional Learning Chair of the Inclusive Learning Network of the International Society for Technology in Education (ISTE). His work has appeared in publications such as *Teaching Exceptional Children*, *Closing the Gap Solutions*, *THE Journal*, and *The Loop Magazine*. In addition to his work in educational technology, Luis is an avid photographer whose work has been featured.





# Inclusive design for learning

## What does the term accessibility mean to you?

One of my frustrations, as a person who works in the field of inclusive education, is the idea that accessibility is for kids with special needs. It's not just for those who have disabilities, because the reality is that it is for everybody.

I would much rather focus on universal design. And even that has a connotation. That is why I started referring to it as inclusive design for mobile learning. Universal design links immediately to architecture and I look at it from a wider perspective. We need to move the conversation back to education.

## Where would you guide teachers to who want to look for accessible learning materials?

I think ideally they should be creating their own materials. As a teacher you know your classroom better than anybody. I know there is a lot of content out there, but it may not be exactly what you need for your kids.

I also think that there is something powerful in having them create knowledge rather than consume information. A lot of times when you are using someone else's resources, you reinforce the model that somebody else is the expert. That's an important shift I think.

Knowledge is local, in many ways contextual. You are going to get a more powerful experience involving your students in creating the content.

**"I also think that there is something powerful in having them create knowledge then consume information."**



### Would that be a way to avoid problems with copyrights?

Regarding accessibility avoiding copyrighted materials is definitely the way to go. Because even if someone else creates a video, that doesn't allow you to caption it. Just in a simple situation like that, copyright gets in the way of accessibility. Right now you can only request that the creator will caption it.

Again if you create your own resources, you avoid this problem.

### So captioning videos would already be a big step?

Absolutely! And I don't see this as an accessibility feature. It really is an inclusive design best practice. It's not just the students with hearing loss who benefit from it, because if you have kids with low literacy or those who speak another language it will help them too. It can even help you as a teacher by making your own videos understandable in a noisy environment. You can still play the video and the children can read along with it.

Closed captions are a text version of the spoken part of a television, movie, or computer presentation. Closed captioning was developed to aid hearing-impaired people, but it's useful for a variety of situations.



I would say that the first step is to evaluate many resources and then look for something with closed captioning. People who have taken the time to caption, will indicate it by using the "cc" symbol.

### Do you feel that there is a shift toward this? Is there more awareness?

Yes there is. A lot of the big developers of instructional materials are paying attention to it because of changes in the legislation, especially here in the United States of America. They want to get ahead of the curve because they know there is a necessity for it.



**“A movement like flipping the classroom is great and we should encourage teachers to make their own materials.”**

**Is this a positive trend then for all those teachers who are flipping their classroom?**

A movement like flipping the classroom is great and we should encourage teachers to make their own materials. The problem is when this is the only method of learning and I have a student with a hearing loss in the classroom, that student can have some barriers to learning. That is why we need to pay attention to inclusive design of learning materials and how they impact student learning.



### **A quick tip from Luis:**

Always begin with a transcript. When you do this, you are going to have a number of benefits:

1. You are not going to stumble over your words as much.
2. It is going to help you with your own thinking in terms of organizing the information.
3. You will have the closed captioning done already.

When you upload it to YouTube it will caption it with the timing.



@\_luisfperez

## KURT KLYNEN

Kurt started his career 15 years ago as a teacher. Until this day he still teaches in a primary and secondary school working with children and teachers on integrating technology in teaching and learning. After school hours he works a lot with teachers on curriculum development leading to the foundation of ICT Atelier in 2009. Always with one mission: hands-on, inspiring workshops on the integration of technology in education.





# Mobile learning experience

## Has the rise of apps helped the use of mobile devices for learning and teaching?

For schools who are just discovering the possibilities of mobile devices that will definitely be the case, but I think we should focus on the learning experience for the students. There are so many apps out here that it can become quite overwhelming. Focusing a lesson on an app isn't the way to go for me.

## What should be the next step then?

As teachers we should always focus on the learning process of the student. The tools are there to help them achieve their personal goals. You can see it happening already. Tablets have been around for more than five years and blogposts about integration are highlighting the workflow of using multiple materials instead of lists and lists of apps.

It's time to be mobile with a mobile device and take it outside in a different learning environment.

## How would you do that then?

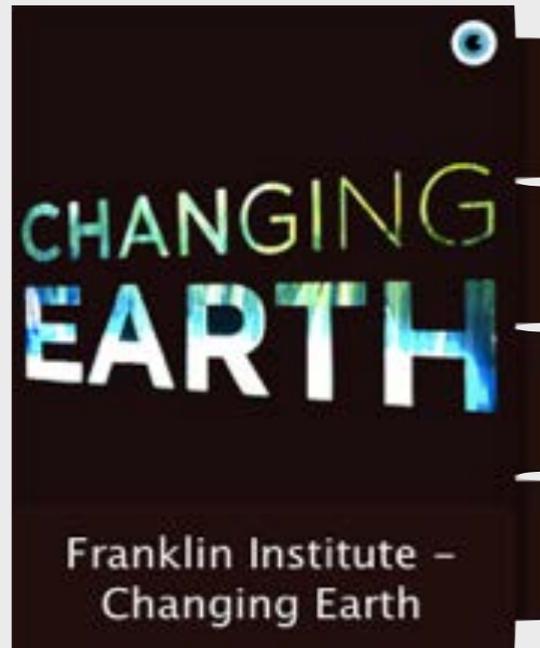
I've just worked with 1:1 schools who want to see the benefits of their devices on field trips and museum visits. They want to link to the real world and use the device on the spot when it's needed. A museum or a school tour are ideal entry points to go to that next level.

**"It's time to be mobile with a mobile device and take it outside in a different learning environment."**

For this specific example I've visited an exhibition called "Changing Earth" at the Franklin Institute in Philadelphia. When I was walking around I noticed two things: great content and a very static user experience. Most of the activities in a museum are focused on reading. This is where the gears in my mind start turning and my teacher glasses go on. I ask myself: "How can I make this into an interactive learning experience for my students?".



## Changing Earth



[Subscribe to this course](#)

Explore how our response to Earth's changes will impact our future on Earth and discover how your choices impact our future Earth.

Combine the power of your iPad with the experience of the Franklin Institute.

[www.fi.edu](http://www.fi.edu)

### How do you start on such a project?

When you want to take devices outside your classroom I think you need to consider three steps. First the experience before the trip, then you should think about activities during the actual visit and last but not least the reflection part once you are back.

So looking at the museum visit I wanted them to be curious and excited about this visit and about this topic. I created a poster that they had to scan with an app called Aurasma. When the students scan this, a video trailer appears inviting them on a journey to the museum. This is my first step: student excitement. I want them to learn from within.

Next I had to think about the activities in the exhibition and how to interact with content that is present. I asked myself questions like: Is there WiFi at the location? Which materials should be downloaded before arriving at the museum?

These and other questions were transformed into a teacher manual that goes with the course. I wanted to create an experience that they could have not gotten with a paper student workbook. This led me to create a recording a weather report with the actual data on that day, calculating their carbon footprint, designing eco-friendly houses,...



**“I know flipped classrooms are a hot item at the moment, but that doesn’t mean that every single task has to start with a video.”**

**What is important in designing these learning experiences then?**

Reaching all learners is at the forefront of design. From my own experience I know that delivering only text assignments will get boring really quickly. I look at all the possibilities and make sure that I put those into a project like this. I use a checklist to make sure I don’t force a material in just because it’s possible. For example video isn’t always the best solution. I know flipped classrooms are a hot item at the moment, but that doesn’t mean that every single task has to start with a video.

In this case audio was a difficult one for me. How can I integrate a sound file to help students understand a topic better. I reached out to my professional learning network and pretty soon got all kinds of ideas from recording the assignments for the dyslectic learners to creating a full audio guide. Eventually it became a mix of both because all learners benefit from this way of working.

**How do students deliver their end results in a scenario like this?**

A video assignment was one of the activities, so handing in a paper sheet wasn’t an option anymore. I looked at alternatives and that search resulted in a passport student workbook created in Book Creator. This app is a perfect example of how to use the full capability of a mobile device. Students inserted pictures of their drawings, recorded conversations directly in the book, and reflected in a video booth at the end of the book. Afterwards they all delivered their results back to me in a finished book. Before they got on the bus all the work was already handed in.



## How would someone new to this way of working start?

Start small. Go to your local museum or build a tour of the school for when parents visit. Then look at what you normally do on these trips. What are the learning goals for the students? What do you want them to have mastered after an event like this?

Look at all the options you have now on your device. Audio, video, photos are already three things you didn't have before. With a basic set of apps you can work on transferable skills like presenting, communicating, etc.

Don't try to do it all at once and ask for feedback. Be open to suggestions from colleagues and students.



@meesterkurt

## CATHY HUNT

Cathy Hunt is an experienced teacher, artist and education consultant. Her work is driven by a belief in the importance of an arts education that promotes 'making' as a vehicle for empowering students with an understanding of their own creativity. Cathy sees technology as an integral tool in this area.

Her website [iPاداتroom.com](http://iPاداتroom.com) has become an award-winning, home base for educators to share and engage with innovative ideas, resources and technology for learning in a art room that combines paint and pixels.

Cathy also works with a variety of major institutions and regional galleries across Australia in their public arts events, professional development and education programs for children, teachers and artists.





# Power of the camera

## How do you start your workflow for integrating materials into a lesson?

One of the ways I look at materials is to look at what the kids are using on their own and I ask a lot of questions.

One of the biggest entry points for art making for me is the built-in camera. Combining the idea that I want to use the camera, as a lens upon the world and the idea that they use a lot of photography in their daily lives, is not just for leveraging the technology. It is also for art making and getting them to see the difference between what they are doing when they take a snapshot and when they make an image that has a communicative purpose.

## Should someone who starts with a mobile device explore the power of the camera first?

This is such a visual world now for our students. It's a media saturated world, but also one in which they have to contribute. The time where resumes are written up in Microsoft Word is passed.

Students who are in middle school now, will need to have portfolio's with a video application.

That requires them to understand the visual language to tell their story in a moving, visual manner. So I think this is important for all subject areas.

**"I love to break down that paradigm that people have about devices being individual and not collaborative"**

Some of these kids are taking hundreds of photos a day. When you look at their camera roll it's quite impressive how poorly they compose these images. It proves that it doesn't matter how many times you push the button or take the shot, you still need some guidance.



There are a whole lot of principles, which include the elements of art, which actually guide the construction of a quality image. Students and teachers need to be learn that. Combining the camera and these principles is a great way to start.

### Could you clarify that with an example?

One of the things I do with children and teachers in my lessons is have them turn on the flashlight on their devices. You can actually see how the lighting effects the mood in a face by just moving the angle of lighting.

I can make a very dark and angry, almost sinister face or light up a face and make it very friendly. You can do lots of incredible stuff just with the basics of the camera.

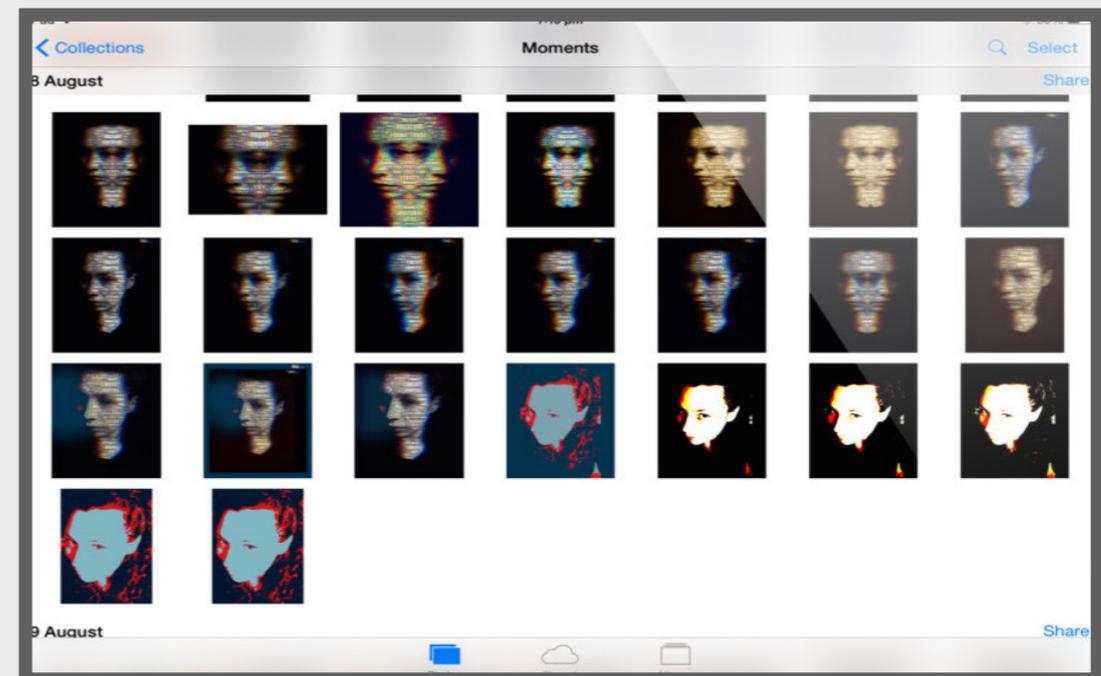
### Doesn't that require all students to have a device?

I love to break down that paradigm that people have about devices being individual and not collaborative. So I let the students share the devices, move around the room, be the model and photographer, look thru the lens and get feedback from each other. For me that is the whole point of having mobile devices.

I'm always trying to get the kids to see that their devices are tools for creativity, not for consuming media. And at the same time I want to show educators that our students don't need to be on a one to one platform to be accessing technology. In fact I often share one device between three or four students, because in these kind of activities it benefits them more.

#### Featured lesson

#### Don't hate the selfie!



“One of the biggest entry points for art making is the build in camera.” - [Read more](#)



### How would you change the point of view then for mobile learning?

There is this idea that kids take selfies all the time. A selfie would be a good entry point to break down these paradigms and see each other a bit more clearly. There are definitely those who do, but at the same time there are kids who don't.

There are some who find it very difficult to use their own image and who still need to produce that same resume video. In that case I want to give them some options.

An example of what I use to work on this is with an app like Tellagami. It just gives them that comfortable feeling.

### How do you select tools for them then?

It's all about meeting students on their own level. So giving kids apps or selecting materials for them is not the right way. They already have these tools, have been using them and exploring them in their own time. Educators should be exploring apps on student devices and using them in their classrooms. It's a far better way than teachers searching for the right materials.

If teachers feel confident enough to ask the kids, they will offer a solution and even suggest the tool that they are using and feel competent with. Those students will start the conversation in the classroom and support the learning. That helps a lot, especially when all of this is new to you. It frees you up to focus on the learning goals.

### Do you encourage students to preserve original content? How?

I always like to talk about the creative process. When you take photos in the native camera app, then what you are doing in your camera roll is recording every step of what you have explored. Your thinking becomes very visible and visual.

When you take a selfie in a specific app and you use one of the filters, the original image doesn't necessarily exist. You lose a step. You might have the best position, but you don't like the filter and without the original, there is no way to change to another filter. Therefore it is very important when you search or create learning materials you always preserve the original.



## Recommended apps

### Tellagami



Tellagami is a mobile app that lets you create and share a quick animated video.

### ChatterPix Kids



Chatterpix can make anything talk -- pets, friends, doodles, and more! Simply take any photo, draw a line to make a mouth, and record your voice.

### Puppet Pals HD Director's Pass



Puppet Pals is a creative and fun educational app that encourages children to produce their own personalized movies and be the star of their shows.

## Would you advise teachers to follow a certain pattern?

Linking to the creative process, you are showing students that they can take the original and remix it in whatever way they want. This strategy enables them to use it on any device and for every subject area in school.

You will actually promote their creative confidence with this way of working. They will see that no matter what they are trying to achieve, this is a transferable skill. They can keep moving forward until it doesn't work anymore for them and then the students can backtrack to the original step.

If you keep the mindset of preservation in the forefront of your pedagogy, it will quickly kick in with students.

## Does that require a change in mindset?

It sounds that there is a lot of thinking behind the simple act of taking a photo,... And there actually should be. As a teacher you know the end goal, but to get there you will let the students play and explore first. The second time will be about reflecting and on other occasions it can be about stepping back and making decisions in that creative process.



**“It sounds that there is a lot of thinking behind the simple act of taking a photo,... And there actually should be.”**

At the end of the day it is not about that camera, but it is about developing people who can pick up tools, create with them and to do that they are going to need confidence.



@art\_cathyhunt

## CHRISTINE DIPAULO

Christine is the Director of Innovation and Instructional Technology at String Theory Schools in Philadelphia. Her role is to work with faculty and staff supporting technology and pedagogical initiatives in the classroom. In the 1 to 1 iPad program she creates learning opportunities for content creation for all members of the faculty and staff, district wide strategies for innovative uses of technology in the classroom, and best practices for students to consume, create and author content using iPad. At String Theory Schools, Christine is the lead project coordinator on building courses in iTunes U. These courses are inquiry driven and grounded in Challenge Based Learning. Christine works closely with staff members to collaboratively create courses combining the replacement of textbooks, lesson plans and teacher websites in an all in one model. She uses push in support and planning with faculty members to drive the "build it in real time" model of course creation.





# Move towards the fear

## How have you made the transition from traditional to digital learning in the classroom?

We said goodbye to the textbook. We don't have any paper, pencils or school supplies and iTunes U is our vehicle for delivering content to students. When we hire teachers we train them to create their own learning materials.

We are a project based school. We want our students to show what they know and we want them to demonstrate knowledge through outcomes that reach all the multiple intelligences. We want to give them that choice.

## Is creating learning materials something you encourage from day one?

We encourage our teachers to find materials that become points of inspiration. We go out and look for courses that exist in iTunes U, we look for resources on the Internet, we look at materials that our teachers have created and shared with each other. From that we curate the best ideas and best practices to create our own.

## That probably requires a lot of flexibility and change?

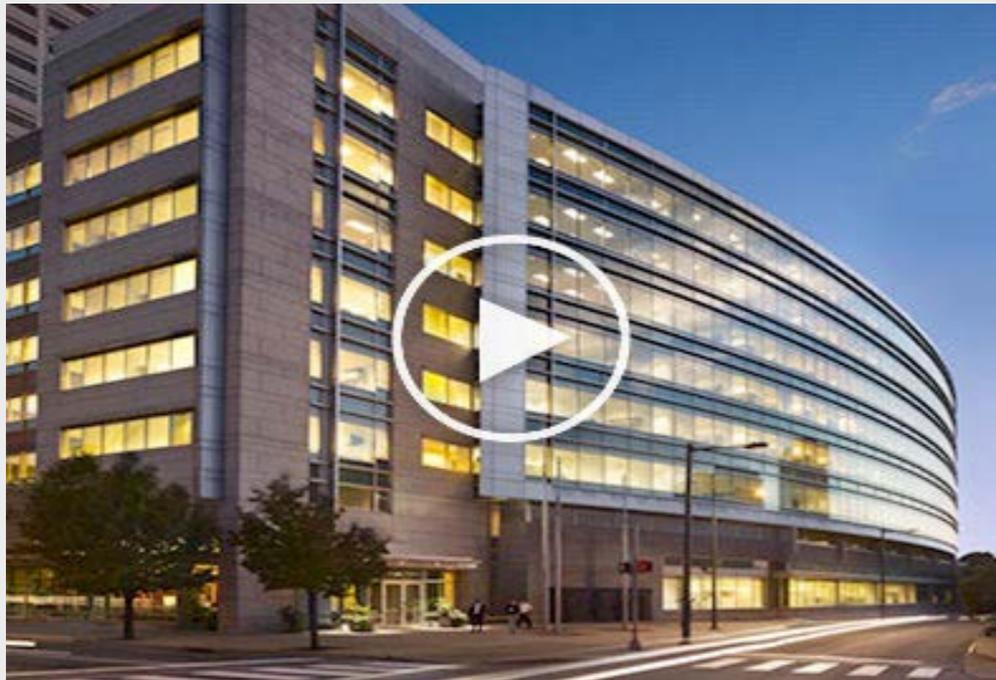
Because our courses are being built live and in real time, it requires a lot of flexibility on the part of the teams. When the kids get their iPads, there are empty containers of iTunes U courses sitting on them. With everyone bringing their collective genius to the table, teams are curating and creating content on the fly.

For example the English team created the ninth grade course together. Each team member is responsible for different elements of the course.

**"We said goodbye to the textbook. Our courses are being built live and in real time."**



## String Theory Schools



[vimeo.com/75969099](https://vimeo.com/75969099)

The String Theory High School for the Arts & Sciences offers students who have an interest in the arts, language, science and technology the opportunity to engage in a curriculum that combines superior coursework and significant field work to create a balance between artistry and academics that gives graduates a solid foundation for their future endeavors.

[www.stringtheorieschools.com](http://www.stringtheorieschools.com)

### What is your role in this process?

My role is to work with the teams during their common planning time. I do push-in professional development with them to help research and curate good content, showcasing the wealth of great resources that already exists. Then we do a lot of brainstorming.

I'm their first point of contact when they are in need of help. I take care of the new teachers when they come in. Show them the background of iTunes U, let them subscribe to some courses and have them experience what it is to be a user. It's important that they understand what our kids are experiencing. After that I get them into iTunes U Course Manager and ask them to build a course that is a jumping off point, starting to think about course design.

### Do the students have a voice in this process of live building?

They do! What is so great about that, is that the students are the end users. It is really hard for the teachers when they first embark on this journey to think about designing for an end user. They are used to thinking about designing curriculum for how they would stand in front of a classroom and teach it.



## **“The big shift now, is that teachers have to think about curriculum for an end user on an iPad.”**

The big shift now, is that teachers have to think about curriculum for an end user on an iPad. These are just some of the questions we ask: What is the look? What is the feel? What is the flow? What are the deliverables? How am I taking students through the process of getting the things that they need? Will they be able to follow along when I give instruction?

The user experience is one always one of the most important experiences. As kids move through this teacher created and curated content we want their feedback. Do they understand the flow? Are they engaged in the learning?

We think about the idea of curating the right resources, giving them the right things upfront and taking them through a process that really creates this robust engaging learning environment.

The beautiful thing is that, that course is being iterated all the time. It's never static, never the same, it's never the end of the project and you have to live with it for the rest of your life.

Learning materials can be swapped out on the fly. So by the time your new class walks into your room it has the latest version of the course based upon the feedback from the previous group.

### **Do you use some kind of checklist for curating learning materials?**

We always talk about copyright and fair use first. One of the things we discuss is what rights do we have in an educational space to distribute materials. Anything that is copyrighted, we don't have the right to distribute. With all our courses out there public in iTunes U, we want to make sure we aren't violating any copyright laws.

In my instructional technology course for our teachers, all the rules for copyright and fair use are included. One of the things we really like to focus on and think about is the more content we can create ourselves, the less we have to worry about these laws.



The other really important thing is when you are searching and re-searching for the right content, that you are able to validate and authenticate websites that you are looking at. Do you know when it was last updated? Does the information make sense to you? Does it seem logical?

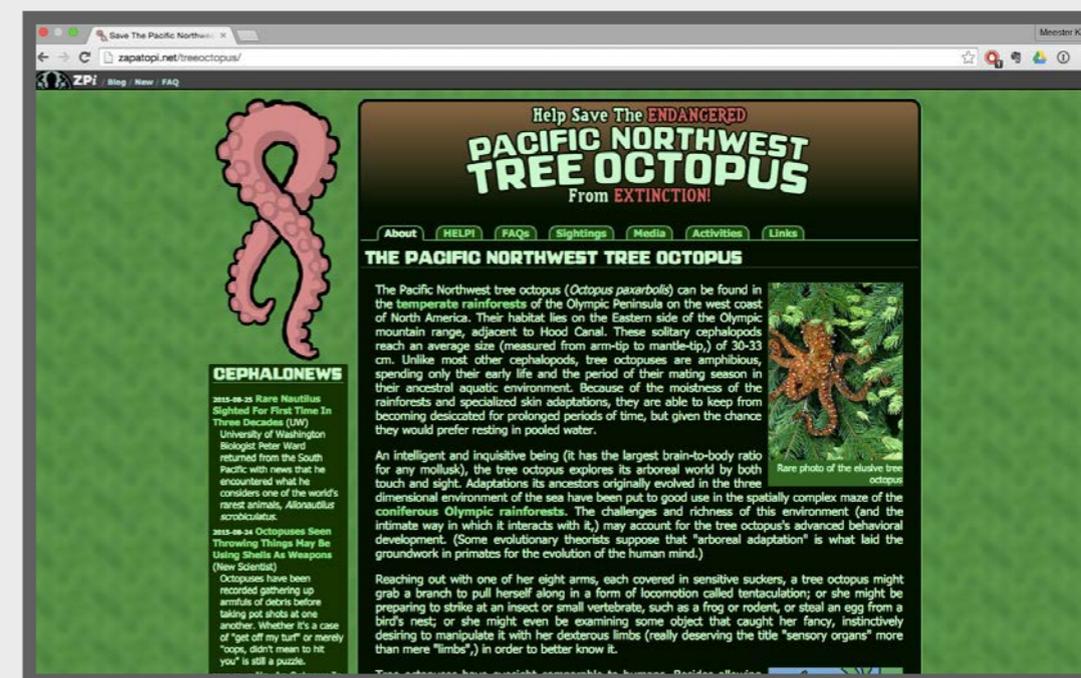
Validating is an important component. You can't just do a Google search and trust that the first result is a valid website. Have a look at a hoax website about Martin Luther King or about the Tree Octopus. Sites can be completely biased or misleading, but look really authentic and well designed.

I ask teachers to take a look at things like this. It will help them to think critically about the learning materials they are coming across and how they have been authenticated and validated.

**Is it that easy to take your existing lesson plan, chop it up, take the good parts out of it and inject the new materials?**

We have to look at those existing paper lesson plans. How do we move that plan into the digital space that is entirely driven by iPad and learning? The whole thing about this device is that the learning is 24/7. A student doesn't leave the classroom when the lecture is over without a way back to that same lesson.

## Featured website



[zapatopi.net/treeoctopus](http://zapatopi.net/treeoctopus/)

The Pacific Northwest tree octopus website is among a number of sites commonly used in Internet literacy classes in schools.

Despite the falsehoods shown on the site, such as the inclusion of other hoax species and organizations (mixed with links to pages about real species and organizations), all 25 seventh-grade students involved in one well-publicized test believed the content.



**“Think big, dream big, do big things and move towards the fear. Go bold or go home.”**

With flipped classrooms and apps like Explain Everything we can create the lessons in a video and have those lesson always available. So that when the student needs it, he can review it.

**This can be quite intimidating for a new teacher? How do you deal with that?**

It is, and one of the things we always say is: “Think big, dream big, do big things and move towards the fear. Don’t worry because no one is going to die and we are not saving babies.” So create everything, take a chance, design a project and try everything. See what works and what doesn’t.

There will be times when things don’t work out as well as you hoped and times when it is more than you could have ever imagined because you gave your students the freedom to think big.

One of the practices of being a great teacher is that constant reflective process. Somethings don’t always work and you don’t have wins every day. What you started out with was a really good idea. So take that idea, use your feedback and put it in it’s second version. Fail fast and fail often and that will take your course to the next level.



@ckdipaulo

## JOHAN ANDERSSON

Johan Andersson (PhD) is a Swedish science teacher and Advisory Board Member EMEA for Apple Distinguished Educators. Having implemented technologies within his own classroom he became passionate about finding an alternative for the traditional textbook within the education system. He teaches in a classroom where everyone will feel at home. He decided that technology has changed the role of the textbook as we know it, and tries to share his vision with schools around the globe. As a true global citizen who lived in the UK, Russia and the US, Johan previously was a professional dancer who performed on National Swedish television.





# Activity Based Learning

## Will digital materials make learning more accessible?

These days there are a lot of schools who are starting to use digital materials for teaching and learning and they still use separate tools to make learning accessible.

For instance when teachers have a dyslexic student they would point to an app or a feature to use. To heighten their way of learning and to take away the hassle of using a separate tool.

## How would you do that?

The big thing I learned when I was a dance teacher, was that you need to reach them on their level. Know your students' biggest passions and their inner fears. Which means that I need to know how they want to communicate. Maybe singing is their passion so audio could be a point of entry to learning.

Knowing this, I started thinking I need two things when I start building or researching materials. I need the materials to be readily available so they can cope with the task. Secondly, all my students should have access to multiple ways of learning according to their learning styles.

If there is a written text I would need a sound file to go with it. That file needs to be so accessible that you just have to tap on it and not have to go to another app that will take the focus on the task away. It needs to be there, right there and then.

**"Know your students' biggest passions and their inner fears. Which means that I need to know how they want to communicate."**



### What if... Talk



[vimeo.com/118067758](https://vimeo.com/118067758)

What if... we could use our talents in arts, dance and music to show our skills in science?

Here in Sweden we can't just say read a chapter in your physical textbook. We also need to provide them with an alternative of the same book, where someone will read the text to them. Some people like to read a book, others like to listen to one. It's the same material, you just give your students their own choice of entry.

Although I think this is still one step too many. For this reason I put the text and the sound file in the same learning tool. It helps students with concentration problems to be better focused with little or no distractions. As a subject area teacher I need them to learn the content as fast as possible and help them become life long learners.

**Is that the golden rule: give them multiple access points to the same content?**

To give my students multiple access points to the same content, I like to provide them with an interesting video that triggers their learning. This video is not a replacement for what they need to do, it is simply a trigger to get them to engage with this activity. They still need to read the same text or listen to the sound file. I just want to hook them into my subject, make them curious about the topic.

In selecting a video, you must be very careful. It can't be too long. Keep it short, keep it interesting. It can be some kind of teaser or challenge. By making it visual it helps to bring the subject to life.



### Would you say that this influences your way of selecting learning materials?

Yes, because there is some really great content out there. I choose materials that best meet the needs of my students and then create additional resources to make them more accessible. I like to record these assignments, so that my students have a choice to read it or to listen to them. This helps children with learning new concepts and is even beneficial for those learning a new language.

### What are some other considerations you make?

If a child is struggling to write a text about my assignment because of dyslexia, I would ask him/her to deliver it in an animation or a video, proving that they grasp the concept.

I sometimes provide cards with keywords and then those have to appear in the final project. This proves to me that the student understands the content and knows how to tell it in a story. It even helps to expand on the language of the curriculum.

**"I have designed a workflow with several different parts. I call it "Personally for your heart and mind"."**

### Talk a little bit about how you design your own materials.

I have designed a workflow with several different parts. I call it "Personally for your heart and mind".

It begins with something in the subject to trigger my audience's interests; makes them curious about what is coming and explains it in a very simple way. However, it needs to be very personal and it needs to touch their hearts.

I like to teach with a little twist and have this element of surprise in my message to get them engaged.



After that hook, that intro, students get an assignment to create a good presentation to demonstrate their understanding. For example they could create a video or presentation.

Next they move to reflection using these three questions. What did you learn about the subject? What skills have you developed? How are these skills important for your future work?

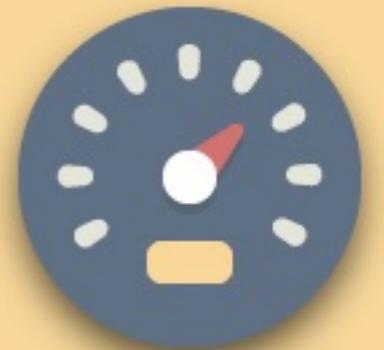
Finally I present them with a new challenge to deepen their understanding on the current topic a challenge.

This has become my trademark model and I call it "Activity Based Learning".



6

# CREDITS





## CREDITS

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### GraphicBurger License

All resources available for download on GraphicBurger, including but not limited to, Logo MockUps, Product MockUps, Text Effects, Icons, User Interfaces, Illustrations, Background Images, are royalty free for use in both personal and commercial projects.

[graphicburger.com](http://graphicburger.com)

### Icon set

### Elegantthemes

### Beautiful Flat Icons

License: **GNU General Public License**

### Flag set Icons

[www.bannerflow.com](http://www.bannerflow.com)

### BookWidgets

Learning Grader is a free tool to help you evaluate the quality and effectiveness of a mobile learning materials in terms of how it may impact student achievement.

Many teachers that work with iPads, Chromebooks or Android tablets in the classroom have a hard time wading through the huge number of apps, books and other learning material available. This rubric helps you evaluate them consistently.

[www.learninggrader.com](http://www.learninggrader.com)

[www.bookwidgets.com](http://www.bookwidgets.com)

Our thanks to the teachers who have provided support and shared their ideas and creative lessons.



"We believe that engaged students learn better, faster and gain a deeper understanding." - [BookWidgets.com](https://www.bookwidgets.com)



## OUR STORY

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Mobile technology increases student achievement and makes learning more engaging and personalized.

Until now, creating interactive content for tablets required strong programming and design skills and as such, was only accessible to publishers or app development professionals. BookWidgets empowers teachers to quickly create exercises for mobile devices, tailored to their students' needs, interests and skill levels. In minutes. No programming required.

By leveling the playing field, personalization of instruction to meet the needs of different students is within reach of any teacher. To deliver on this mission, Xavier and Niels founded Kidimedia in 2012. We were quickly joined by Bart and later Remko and together, we aim to unleash the educational potential of mobile devices. We firmly believe this will lead to more engaged and highly motivated students, so that they can reach their full potential as well.

We are grateful and proud to be supported by iMinds, Flanders' digital research center and business incubator.



Designed by ICT Atelier in Belgium - Kurt Klynen