

Our amazing
LittleClickers
topic this
month...



April 2018



It's Google vs. Apple in Hardware Wars

Who wins?
Our children.



The \$329 Acer **Chromebook**
Tab 10 with Wacom stylus

The \$386 Apple **iPad 9.7 inch**
with Apple Pencil

On the cover: One of the many low cost touch screen Chrome/Android tablets coming to market. Apple is responding.

Children's Technology Review
April 2018

Volume 26, No. 4 Issue 218

Acer Chromebook Tab 10
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My Tamagotchi Forever,
Old Man's Journey*
Sago Mini Apartment
Speech Breaker
Squishy Circuits



* Denotes "Editor's Choice."

"If you are able to finish something, people will respect you for it." Clemens Scott, Co-Creator, *Old Man's Journey*. <https://youtu.be/YQYzHMTKf4k>



Dear CTR Subscribers --

I'm just home from the Bologna Children's Book Fair, with plenty to report.

Let's start with the biggest non-news -- **Apple's Education Event**. I had hoped for something dramatic, like a drop-proof, touch screen laptop with wireless (Qi) charging, and a battery free stylus. But all we got was yet another iPad to sort out. Still, there were some important software announcements to note, including a new feature called ClassKit (see <https://developer.apple.com/classkit/>) that lets educational app publishers sync their content to Schoolwork -- Apple's new content management package. Whenever one giant shifts, others respond. See page 3 for analysis of the recent hardware news.

DEVELOPER SPOTLIGHT: CLEMENS SCOTT

A highlight of the Bologna event is getting to meet some of the winners of the BolognaRagazzi Digital Award in person. One of the winners this year was *Old Man's Journey* by Broken Rules. This app is important because of the way it seamlessly weaves a story with video and interactive content. It's also important because it's making money, without relying on in app purchases or subscriptions. Get to know the *Old Man's Journey* story, at <https://youtu.be/YQYzHMTKf4k>.



LITTLECLICKERS: LASERS

Want to see a powerful laser blast some things? Of course you do. But lasers can do a lot more than blow things up. They can scan your groceries, make a mouse work, and let you "see" sound, by turning a speaker into a sound visualizer. Read more at www.littleclickers.com/lasers and on page 3.



Children's Technology Review April 2018

Volume 26, No. 4 Issue 218

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ONE YEAR SUBSCRIPTIONS are regularly \$60 for 12 monthly issues, 52 weekly issues plus online database access. Weekly issues are sent at 8:30 AM on Wednesdays EST. Site subscriptions are available. Contact *Children's Technology Review*™, 126 Main Street, Flemington, NJ 08822 or call 908-284-0404. Visit www.childrenstech.com to learn more.

PRODUCT SUBMISSIONS. Send one product or download code with release information to Warren Buckleitner (warren@childrenstech.com) Editor, 126 Main Street, Flemington, NJ 08822 (Phone: 908-284-0404). No swag, please.

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PUBLISHER INFORMATION *Children's Technology Review*™ (ISSN 1555-242X) is published monthly (12 issues) by Active Learning Associates, Inc. Send address changes or new subscriptions to *Children's Technology Review*™, 126 Main Street, Flemington, NJ 08822 or circulation@childrenstech.com. **Use of this publication for any commercial publishing activity without prior written permission is strictly prohibited.** Readers are subject to the TERMS OF USE found at <http://childrenstech.com/disclaimer>

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Dust or Magic

June 1-3, 2018 • AppCamp The West Coast

edition of Dust or Magic, at the Asilomar Conference Grounds. \$1280/seat.

Save these dates!
www.dustormagic.com

Nov 4-6, 2018 • Institute The 18th Annual fall institute will once again take place at the Inn

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5 (or so) sites & 10 videos

Lasers

Read this column online, with links, at www.littleclickers.com/lasers



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It can keep a car on the road, read bar codes, prevent blindness and (most importantly) entertain your cat (or your father). That is it? The laser. How is laser light different than regular light? Who invented it? How does a laser work? Let's learn some more.



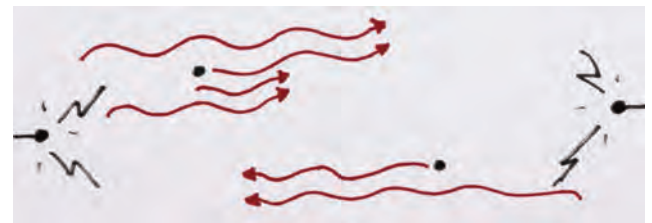
1. Who invented the laser, and when? According to <http://www.laserinventor.com/bio.html>, Theodore Maiman was the first person to demonstrate a working laser while working at the Hughes Research Laboratory in California.

2. Many people don't know that the word "Laser" is an acronym. What does it stand for? At <http://bitly.com/2GcWIav> you learn that LASER stands for Light Amplification by Stimulated Emission of Radiation.

3. Why does a cat chase a laser? At Petful <http://bitly.com/2GizQ5B> you learn that cats chase lasers because they think the little red dot is prey. And they can get frustrated because they never get the "catch." The solution? Offer a lot of other types of toys for your cat. PS. It works with dogs, too.



4. How do Lasers work? At <http://bitly.com/2pZ9kXV> you learn that light is made up of photons, but laser light is special, because all the photons line up on the same wavelength; in sync. So the beam is concentrated. Most lasers use tiny red ruby crystals, which is the reason most lasers are red.



5. Where is the world's strongest laser? Meet "Bivoj"-- a 20 ton laser in the Czech Republic. It's powerful beam can be used for medicine research and for treating metals. Two other huge lasers are in Austin, Texas (one petawatt) and Osaka, Japan (two petawatt). Learn more at <http://bitly.com/2pWuRRa>

6. Is there such a thing as a laser light show artist? Absolutely. There's an entire group of artists that are making their living designing laser shows. Learn more at <http://www.ilda.com>, where you can also learn that the lasers in light shows and laser pointers can't harm your eyes.



APPLICATION

Make a sound visualizer. Here's an experiment you can do that shows you how to turn a small speaker and a laser pointer into a sound visualization system. Have a look at <https://youtu.be/eA2CaK9TNBM>

Lasers on YouTube

Want more? Here's a video playlist that go along with this column

<https://www.youtube.com/playlist?list=PLcBVHzUUEKwllpqqUMiv6sw8MDAWoIKKw>



It's Google vs. Apple and the children win...

by Warren Buckleitner

"Our place at the intersection of technology and the liberal arts makes it possible for us to create powerful products and tools that amplify learning and creativity." Tim Cook during Apple's March 27, 2018 school press conference in Chicago.

Recycled Steve Jobs quotes are nice -- but I had hoped for a "but wait, there's more" moment in this press event that never came.

What did I want? From a hardware point of view, what every teacher needs: **a drop-proof, touch screen MacBook with wireless Qi charging and a battery-free stylus, for \$500.**

Impossible? Perhaps... but so was the first Apple IIc, iPhone and iPad.

Instead, we were shown another iteration of the iPad to sort out. Yes, it's one small step toward a better school tablet, but what Apple unveiled last week doesn't compare with the value/power proposition of Google's Chromebooks/G Suite, at least from a hardware point of view. Let's examine the latest hardware from both companies through the lens of a public school teacher, using a "Three C's" hardware rubric.

• **Complexity**, aka "will it make my day easier?" A teacher who adopts the iPad/stylus system will now have two hardware items per child that might have a dead battery -- an iPad a stylus. The iPad stylus uses bluetooth, which means it must be paired to work. Multiply these variables times 20 busy second graders, and you have the potential for an instant headache. The Chromebooks offer an all-in-one Wacom battery-free stylus that does not require synching or charging. It just works -- with any other Chromebook, too. Advantage Google.

• **Cost** aka "How much does it cost, vs. what does it do?" The lowest base school price for the 9.7 inch iPad for schools is \$300. But there are expensive add-ons, like the stylus (\$90 for Apple's Pencil or \$50 for a "crayon" from Logitech) and some sort of drop protection. If that includes a keyboard, add another \$100 to the bottom line. Now we're at \$450, which is significantly more than the \$400 Chromebook. Advantage Google.

• **Content** aka "Can I support my teaching?" Apple's App Store still contains vast riches that have been out of reach of busy teachers. Chrome devices can now run Android, so that a teacher can now shop for apps in the Google Play app store. This could be a lifeline for starving educational app publishers. That explains Apple's new Classkit/Schoolwork announcement, which might just be the real headline of Apple's event. From a teacher point of view, you theoretically

can create assignments that might require playing a Tinybop simulation or spending some time using Crazy Gears. Schoolwork can track individual student progress. The trick is that the app publisher must cooperate by installing Apple's ClassKit code inside their app, which we've heard that developers are mostly eager to do. Schoolwork also includes a feature called Handouts -- for managing assignments in any form, including PDFs. Other software announcements included Everyone Can Create -- a bundle of apps and teaching guides designed to work with the Pencil and camera. Apple demonstrated how students can use the built-in camera in iPad to learn about fractals or they can use Apple Pencil and apps like Tayasui Sketches to learn about symmetry. Apple will be using the curriculum in their stores. So who wins when it comes to Content? That's yet to be determined. We'll see how many developers implement Classkit, and watch to see if Google Play starts supporting ethical educational app publishers. Stay tuned, because this battle is only starting.

Source links

- Google's Education Site <https://edu.google.com/>
- Google's Blog Post on Education <http://bitly.com/2pKvuht>
- Acer's Press Chromebook Announcement: <https://www.acer.com/ac/en/US/press/2018/360016>
- Acer's Chromebook details (CTREX) <http://reviews.childrenstech.com/ctr/fullreview.php?id=19840>
- Apple's school software: <https://apple.co/2Gdr0dm>
- Apple's new iPad: <https://apple.co/21657cg>
- Apple's ClassKit: <https://developer.apple.com/classkit/>





Feature Reviews and New Releases

APRIL 2018

Here's an alphabetical listing of both the feature reviews (with ratings) and the new and future releases. "Entry Date" refers to the date we first learned of the product.

Acer Chromebook Tab 10

This touch screen tablet supports Android and Google Play's library of apps, helping to bridge the "app gap" that exists in many schools. This is Acer's first Android Chromebook, designed to leverage Google's IT friendly management features with an affordable price point.

Features include a 9.7-inch touch IPS display (264 pixels per inch) and a battery free Wacom EMR stylus that fits inside the chassis for storage. The device weights 1.21 pounds and measures 0.39 inches. Cameras are 2MP front, dual speakers and microphone for chats and a rear 5MP camera.

The Wacom EMR stylus can be embedded in the chassis dock for secure storage. The batteries lasts 9 hours. Other specs: an OP1 Processor and 4GB of RAM, bluetooth, 32GB of on-board storage and 2x2 MIMO 802.11ac Wi-Fi connectivity.

The new Acer Chromebook Tab 10 includes a USB 3.1 Type-C Gen 1 port, which can be used to charge the device as well as other products, transfer data quickly up to 5Gbps, and connect to an HD display. It also features combo headphone/speaker jack and a MicroSD card reader.

The new Acer Chromebook Tab 10 (D651N) will be available to education and commercial customers in North America in April priced at US\$329 and in EMEA in May priced at €329 (including VAT). Learn more at www.acer.com.

Details: Acer of America, www.acer.com. Price: \$329. Ages: 4-up. Platform: Chrome. Teaches/Purpose: A chromebook. Entry date: 3/27/2018.



Choiceworks 7.0

Choiceworks is a picture-based teacher utility to help children complete daily routines, understand and control feelings, improve waiting skills and make choices. It can also be customized for teachers in a school setting. Features include:

- Four boards: Schedule, Waiting, Feelings and Feelings Scale.
- A pre-loaded library of 180 images.
- The ability to add your own images and record your own audio.
- Profiles for individual users, and the ability to save, print or share boards.

Schedule Board

The Schedule Board contains up to 7 steps. The schedule is then paired with an all done column to check off steps toward a motivating reward.

Waiting Board

The Waiting Board includes a companion book, *When Do I Have to Wait?*, in order to explain to the child the reason why everyone has to wait on occasion. Using the waiting board, the top picture can be selected to indicate the reason why the child will be waiting and a timer can be set to show how long the child will be waiting.

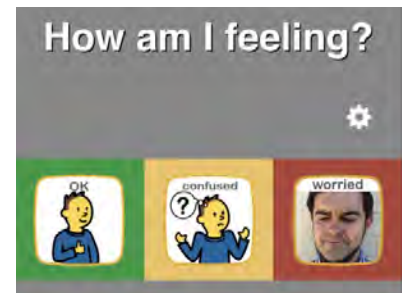
Feelings Board

The child indicate how they are feeling from a range of options. They can also select a coping strategy, and then request an activity which would likely help them feel better or re-engage with others. The Feelings Scale is designed to let you put feelings into words.

Profiles

When using profiles, the app automatically organizes boards by child and encourages independence by removing the distraction of other children's boards.

Details: BeeVisual, LLC., <http://www.beevisual.com/>. Price: \$6.99. Ages: 3-18. Platform: . Teaches/Purpose: classroom management, teacher utility. Entry date: 3/17/2018.





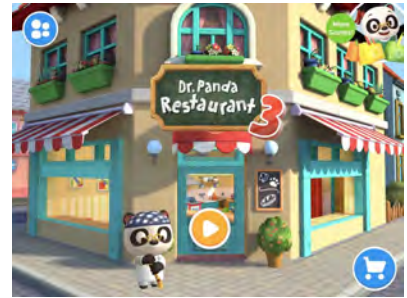
Dr. Panda Restaurant 3

Here's another tasty Dr. Panda app, but it sadly comes with the bad after-taste of IAPs and ads (for other Dr. Panda apps). But it's "free" and with a bit of dancing around, you can get some fun out of the app without making a purchase. While we understand the app store pressure to list "free" content, the placement of tempting items (ingredients, cooking tools and recipes) in front of a curious preschooler is never good practice. In the words of the publisher "Dr. Panda Restaurant 3 is a free educational game for kids offering in-app purchases to unlock additional content. These are one-time purchases which will permanently unlock the content for your account. Check your device settings for more detailed parental options regarding in-app purchases."

Like many cooking games, you get to run your own restaurant, with a steady stream of customers. The more you cook, the more coins you earn, and the more items you can unlock. While most of the actual "cooking" is automated, there are some nice touches. You notice that some customers prefer specific ingredients, and the gas stove really looks hot. Content includes 20 ingredients and condiments, recipes for pizzas, burgers and pasta and a nice variety of kitchen tools.

Our recommendation is to download this app, but be prepared to invest the \$4.99 right away to get the teasing out of the way. This is a good app studio that deserves the income; and your child will most certainly get \$5 worth of play out of the app.

Details: Dr. Panda Limited, drpanda.com. Price: \$free with IAP. Ages: 4-up. Platform: iPad, Apple TV, Android, Kindle. Teaches/Purpose: cooking, creativity, storytelling. Rating (1 to 5 stars): 4 stars. Entry date: 3/12/2018. []



Ease of Use	9	80%
Educational	8	
Entertaining	9	
Design Features	8	
Good Value	6	

iPad (9.7 Inch School Edition)

Apple's answer to the Chromebook for 2018 is -- another iPad, with a lower base cost and the ability to use a stylus. While the initial cost is less (\$300 for a school), the extra peripherals you'll need to use this iPad in your elementary classroom will add to the cost. These may include a \$150 snap on keyboard and a \$50 stylus (both made by Logitech, to Apple's specifications). We had hoped to see something more dramatic from Apple's March 2018 education press event, such as a Qi standard cordless charging.

AT A GLANCE: This iPad (which we have not tested) has a screen that is the same size as the original (9.7-inch (diagonal) with Multi-Touch. But the big new feature is the ability to work with a stylus, thanks to the IPS technology. It also has 128 GB of storage. So another better name for this iPad would be "iPad Pro Standard Sized." In addition to the cheaper hardware, Apple is offering teachers 300 GB of free storage, and two software packages:

- Everyone Can Create is a set of bundle of apps and teaching guides for teachers, so they can use the pencil and camera. It includes teacher and student guides, lessons and ideas. For example, students can use the built-in camera in iPad to learn about fractals or they can use Apple Pencil and apps like Tayasui Sketches to learn about symmetry. Apple will be using the curriculum in their stores to run seminars.

- Schoolwork is a new app for creating assignments, monitoring student progress and assigning existing apps, as long as the apps have been modified so they are compatible with the system. So you can assign a specific activity within an app, and direct their students directly to the specific point within the app.

Developers are being encouraged to update their apps with ClassKit, Apple's new education framework that promises to let them sync their app content to Schoolwork. This has the potential to be very important for ethical app developers who are marketing to schools. Schoolwork also includes Handouts — for managing assignments in any form, including PDFs.

Details: Apple, www.apple.com. Price: \$320. Ages: 3-up. Platform: . Teaches/Purpose: a stylus compatible iPad. Entry date: 3/27/2018.





Logitech Crayon (for iPad Pro)

Smaller (6.5 inches long) and easier to hold and charge than the original Apple Pencil, this new iPad Pro compatible stylus offers 8 hours of writing time, and "over a mile of writing" before the stylus needs to be replaced." According to Logitech crayon has tilt sensitivity for dynamic line weight and can automatically power off after 30 minutes of idle time to preserve battery life. Unlike the Apple Pencil, the Crayon has an on/off button requiring a 2 second press, plus a battery life indicator that is shown with a short press (green light if battery > 10%, red light if battery <10%, LED blinks red if battery life < 5%). It charges via the iPad lightning cable, and comes with a charging port covered by a replaceable tethered cap. The body is made of aluminum, the cap of silicon. Read more at <http://bitly.com/2I9EEed>

Details: Logitech, Inc., www.logitech.com. Price: \$50. Ages: 5-up. Platform: iPad. Teaches/Purpose: A peripheral for the iPad Pro and pencil compatible iPads. Entry date: 3/28/2018.



Logitech Create and Logitech Rugged Combo 2

Designed in collaboration with Apple, these two cases are designed to for the new "school" 9.7 inch iPad. They offer both protection, a way to type, and storage for the stylus/pencil. The Logitech Create includes a backlit keyboard and costs \$150. The Rugged Combo 2 is a foam case/keyboard designed for elementary schools. Both keyboard get their power from the iPad, and can be used in a variety of modes: Typing, Viewing, Notebook and Travel. The case is designed to fit in most charging carts.

Read more at <https://www.logitech.com/it-it/product/create-ipad-pro-keyboard>

Read more about the 9.7 inch iPad at <https://apple.co/2I657cg>

Details: Logitech, Inc., www.logitech.com. Price: \$150. Ages: na. Platform: . Teaches/Purpose: A peripheral for the iPad. Entry date: 3/28/2018.



Math Wizard for Kids

Calling all elementary teachers who care about math (or "maths"). Download this app. It can reach inside a child's mind and help adjust their mathematical thinking. How? It lets you touch and manipulate abstract relationship.

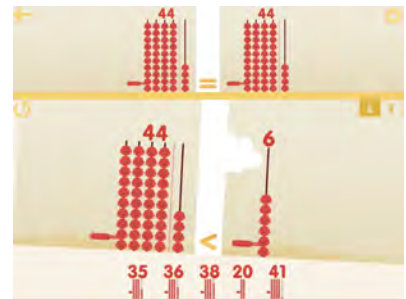
It comes from French designer Pierre Abel and has two modes: Playground (an open-ended editor for free experimentation) and Game (reproduce an expression or equation like $4=4$ or $-1+x=2$). A young child can freely explore the relationships that drive ideas like equality, addition/subtraction, fractions and base ten.

Content covers:

- Integer numbers
- "X" variable (support for others variables such as "y" will added later)
- Expression with + and - operators
- Equation with =, >, < symbols
- It is also possible to divide by two numbers (by "cutting" them) with your finger.

The app can be customized for specific needs (see the screen shot). You can only manipulate elements according to algebra rules to reproduce the expression defined as the goal. It is possible to make your own levels for a particular child. See also the DragonBox series.

Details: L'Escapadou, lescapedou.com. Price: \$2.99. Ages: 5-12. Platform: iPad, iPhone. Teaches/Purpose: Mathematics, multiplication, subtraction, addition, mental math, basic math facts, comparing quantities, classifying, measuring, graphing, interpreting data. Rating (1 to 5 stars): 4.9 stars. Entry date: 1/17/2018. []



Ease of Use	9	98%
Educational	10	
Entertaining	N	
Design Features	10	
Good Value	10	



Merge Cube

The foam cube is a ticket to about 20 AR (Augmented Reality) experiences that range in price (\$free to \$4.99) and quality. The apps are made using Unity and Vuforia (<https://www.vuforia.com>) and the apps are sold in an exclusive app store called Miniverse (see at www.miniverse.io. Winner of the 2018 KAPi Award.

Details: Merge VR, www.mergevr.com. Price: \$14. Ages: 7-14. Platform: iPad, iPhone, Android, Smart Toy. Teaches/Purpose: science, art, timing, spatial relations. Entry date: 3/10/2018.



Merge VR Goggles

These foam VR goggles are Google cardboard compatible. They are designed to be durable, cleanable, sharable, for ages 10+.

Details: Merge VR, www.mergevr.com. Price: \$14. Ages: 10-14. Platform: iPhone, Android. Teaches/Purpose: . Entry date: 3/10/2018.



My Loopy!

Release date: Fall 2018.

This stand-alone three inch tall "robot" has eight sensors and does not require an app to use. Like a Furby, he (the gender assigned by KD Interactive) and sense light, tilt, motion, touch, temperature, proximity, gesture and sound. A change in any of these results in a different behavior (song, sound or statement). He has 24 eye expressions and 150 jokes. For example, you can move him rhythmically to create a tune with the same beat. He starts out speaking gibberish, and gradually develops a personality and better speech. Powered by lithium-ion batteries that are charged using a micro USB port.

Details: KD Interactive, www.kurioworld.com/us/. Price: \$80. Ages: 4-6. Platform: . Teaches/Purpose: fun with language, memory, logic. Entry date: 3/18/2018.





My Tamagotchi Forever

Fun at first, and free, this app is and packed with tricks specifically designed to get you to watch ads, download other apps, send you push notifications, or get access to your social media services. The ultimate goal is to get you to spend some of your real money -- for as much as \$100 in a single transaction. It's fair to call this a carefully engineered behavioral sand trap designed to keep adults and children engaged and then frustrated to the degree that they are willing to make an in app purchase.

The play pattern works, despite the confusing menu design. It's fun to dress and care for your Tamagotchi or their pets, and there are a lot of additional items you can earn or purchase. Testers found the sounds to be repetitive and potentially annoying. The arcade contains a variety casual games that are fun until you are forced to watch yet another ad in order to not loose your spot.

Need to know: We found an video advertisement for "Walking Dead" (an 'M' rated game). It is not always possible to exit from the video content. Also note you don't run into paywalls until you spend at least five minutes in the game. On March 21, Apple was featuring this on it's home page, right next to Daniel Tiger.

Note: Apple notes that the app is listed in "The Today Tab" that has a mix of content (including children's content). This app is "definitely not being marketed as an app for kids just because it happens to be next to Daniel Tiger. The text of the article is clearly addressing grown up millennials and that there is a kids section that only has content for kids."

Details: Bandai Namco Games America Inc., www.bandainamcogames.com. Price: \$Free with ads and IAP. Ages: 4-up. Platform: . Teaches/Purpose: taking care of creatures, language. Rating (1 to 5 stars): 3 stars. Entry date: 3/20/2018. []



Ease of Use	7	60%
Educational	7	
Entertaining	9	
Design Features	6	
Good Value	1	

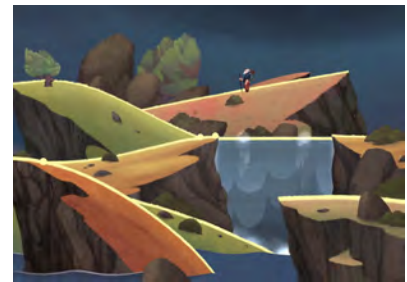
Old Man's Journey

This innovative, beautifully illustrated and designed fiction app lets you navigate through a bitter-sweet story by placing markers in various locations on the screen.

To move forward, you shift chunks of the landscapes -- displayed using a parallax illustration style -- to form bridges. This requires problem solving and planning. You may have to find an alternative path around a waterfall, or coax some sheep out of the way. The space relationships in this app are subtle and interesting, and they are expertly woven into the narrative elements. But the end goal -- to help an old man through his journey through a lifetime of memories, is worth the effort. Created in Austria by Felix Bohatsch, Clemens Scott and others of Broken Rules. Demonstrated at Dust or Magic AppCamp 17 as a "nice touch" by Lance Harris. Caution -- if you're really an old man, this story will make you cry.

<https://youtu.be/YQYzHMTk4k>

Details: Broken Rules, www.brokenrul.es. Price: \$4.99. Ages: 9-up. Platform: iPad, Android, Steam. Teaches/Purpose: logic, human development, art, creativity, spatial problem solving. Rating (1 to 5 stars): 4.8 stars. Entry date: 6/13/2017. [buckleit]



Ease of Use	8	96%
Educational	9	
Entertaining	10	
Design Features	10	
Good Value	10	



Sago Mini Apartment

Explore a seven story apartment building full of friendly animal characters. A well designed elevator makes it easy to move between floors, and there is one activity per floor. Several of the activities are designed to be shared by two children, and multi-touch is supported, making this a good collaborative experience.

There is an exercise room, ice cream shop (decorate deserts), rooftop garden (with a sushi-growing plant). This app provides opportunities for counting, recognizing colors and shapes, gardening and food prep.

Release date: March 29th in Sago Mini World; later as a stand-alone app.

Details: Sago Mini, www.sagomini.com. Price: \$2.99 and part of Sago Mini World. Ages: 2-5. Platform: . Teaches/Purpose: logic, sorting, time, music. Entry date: 3/23/2018.





Speech Breaker

A specialized microphone/speaker designed to scramble your voice, by creating a slight delay through the included headset. Inside the box: a set of cards, the microphone and some earphones. As you talk, the microphone jams your speech with a built in delay. As you talk, you'll hear your delayed voice through the game headset, making it harder to

speak clearly. Requires three "AA batteries required.

Release date: Fall 2018

Details: Hasbro, Inc., www.hasbro.com. Price: \$20. Ages: 14-up. Platform: .

Teaches/Purpose: auditory discrimination, speech, language. Entry date: 3/27/2018.



Squishy Circuits

Play Doh meets electrons, with Squishy Circuits uses conductive and insulating (oil based) plasticine (both water based play dough and oil based clay) to teach the basics of electrical circuits in a very hands on way.

The wire leads, LEDs and various components like a small motor and/or buzzer are included, depending on the kit. You add the batteries. You can use the pre-made doughs or make your own with the provided recipes.

The \$10 lite kit is the most basic kit and includes LEDs. The \$30 Standard Kit includes LEDs plus a buzzer, motor, switch and 25 more LEDs. The resourceful teacher will note that this kit could be easily made using off the shelf parts, or a lot less money. Consider that you can buy a 20 pack of LEDs at www.sparkfun.com for about \$4.

Details: Squishy Circuits, <https://squishycircuits.com>. Price: \$10 and up. Ages: 3-12. Platform: . Teaches/Purpose: electricity, circuits. Entry date: 3/10/2018.





Sago Mini Apartment

Explore a seven story apartment building full of friendly animal characters. A well designed elevator makes it easy to move between floors, and there is one activity per floor. Several of the activities are designed to be shared by two children, and multi-touch is supported, making this a good collaborative experience.

There is an exercise room, ice cream shop (decorate deserts), rooftop garden (with a sushi-growing plant). This app provides opportunities for counting, recognizing colors and shapes, gardening and food prep.

Release date: March 29th in Sago Mini World; later as a stand-alone app.

Details: Sago Mini, www.sagomini.com. Price: \$2.99 and part of Sago Mini World. Ages: 2-5. Platform: . Teaches/Purpose: logic, sorting, time, music. Entry date: 3/23/2018.



Speech Breaker

A specialized microphone/speaker designed to scramble your voice, by creating a slight delay through the included headset. Inside the box: a set of cards, the microphone and some earphones. As you talk, the microphone jams your speech with a built in delay. As you talk, you'll hear your delayed voice through the game headset, making it harder to

speaking clearly. Requires three "AA batteries required.

Release date: Fall 2018

Details: Hasbro, Inc., www.hasbro.com. Price: \$20. Ages: 14-up. Platform: . Teaches/Purpose: auditory discrimination, speech, language. Entry date: 3/27/2018.



Squishy Circuits

Play Doh meets electrons, with Squishy Circuits uses conductive and insulating (oil based) plasticine (both water based play dough and oil based clay) to teach the basics of electrical circuits in a very hands on way.

The wire leads, LEDs and various components like a small motor and/or buzzer are included, depending on the kit. You add the batteries. You can use the pre-made doughs or make your own with the provided recipes.

The \$10 lite kit is the most basic kit and includes LEDs. The \$30 Standard Kit includes LEDs plus a buzzer, motor, switch and 25 more LEDs. The resourceful teacher will note that this kit could be easily made using off the shelf parts, or a lot less money. Consider that you can buy a 20 pack of LEDs at www.sparkfun.com for about \$4.

Details: Squishy Circuits, <https://squishycircuits.com>. Price: \$10 and up. Ages: 3-12. Platform: . Teaches/Purpose: electricity, circuits. Entry date: 3/10/2018.

