



Children's
TECHNOLOGY
REVIEW EXCHANGE

September 2017

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Extremely Last Minute Back to School Technology
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On the cover -- A first look at the My Very Hungry Caterpillar, in AR

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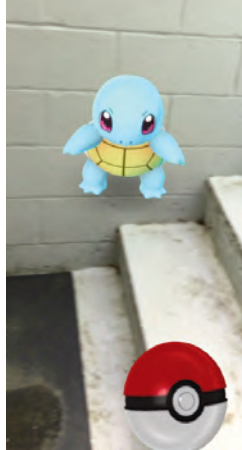


** Denotes "Editor's Choice."*

"If we teach today as we taught yesterday, then we rob our children of tomorrow."
John Dewey, in 1916

Coming Soon: ARKit and ARCore

Last year, Pokémon Go taught the world that augmented reality is not a fad. There's a good chance that AR might become mainstream starting this fall, thanks to Apple's ARKit and Google's ARCore. These soon-to-be-released suites of tools that exploit the power of your phone's camera. What might this AR potential mean for children's apps? We took special note when we noted a screen capture from My Very Hungry Caterpillar from Storytoys (on this month's cover) showing Eric Carl's favorite bug crawling across someones living room. According to CNET coverage, the IKEA room layout AR app is what you should really watch. Imagine pointing your camera to an empty wall in your house, and swiping through options from the store's catalog. You get the idea; especially when you toss in next day delivery. Now all we need is an app that can magically get the stuff out of the box. The new features will most likely arrive this month. Read more at <https://www.cnet.com/news/the-first-arkit-apps-reveal-how-apples-ar-works/>



STEM Gender Bias Starts Young

A University of Washington (I-LABS) report found that when exposed to a computer-programming activity, 6-year-old girls expressed greater interest in technology and more positive attitudes about their own skills and abilities than girls who didn't try the activity. The logic is simple -- if you create a context that is rich in genuine problem solving opportunities and role models who use technology, children are more likely to view themselves as a Girls start believing they aren't good at math, science and even computers at a young age — but providing fun STEM activities at school and home may spark interest and inspire confidence. See bitly.com/2wR7rCv

LittleClickers: Hurricanes The extreme weather in Texas made this month's topic choice easy. Let's learn more about Hurricanes on page 3, or at <http://littleclickers.com/hurricanes/>

Children's Technology Review September 2017

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Dust or Magic

Save these dates!
www.dustormagic.com

October 22-24 • Digital Storyteller's Retreat at the Highlights Foundation

in Boyd's Mills, PA Three days at the intersection of language, literacy, storytelling and emerging technologies. \$1000 (all inclusive), including transportation to/from New York City airports.

November 5-7 • 17th Annual Dust or Magic Institute on the Design of Children's Interactive Media

The original event that started it all. Review the year in toys, video games, apps, AR and VR with the best minds in the world; all in one room, at the Inn at Lambertville Station, in New Jersey. \$1480/seat.

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5 (or so) sites & 10 videos

Hurricanes

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

The extreme weather in Texas made this month's topic an easy choice. We've updated an old LittleClickers to help you better understand hurricanes.

1. Hurricane Harvey didn't have the strongest winds. Why was it so bad?

Answer: Flooding. The New York Times shows why with maps and charts <https://nyti.ms/2vu92ZU>

2. Help! Our car is underwater. Is it ruined? Cars are not boats, and water (especially salt water) is bad for them. Up to 500,000 cars were flooded by Hurricane Harvey. Tell your parents not to start the car because it sucks water into the engine. We found an expert on the subject <https://youtu.be/IIJ--E1SR2Q>

3. Are there any hurricanes going on, right now? At <http://www.nhc.noaa.gov/> you can see a real-time map created by the National Hurricane Center. You can also find out what to do if you are in the path of a hurricane.

4. How do hurricanes get their names? You might wonder, especially if your name is Harvey or Katrina. At <http://www.wmo.int/pages/prog/www/tcp/Storm-naming.html> you learn that the names are assigned six years in advance by a group of scientists from all over the world. Male and female names are used, and no hurricane is named after a real person.

5. What's the difference between a hurricane, typhoon, cyclone or a tropical depression? The only difference is the location that they occur, according to bitly.com/2iQCdFn. In Asia, they say typhoon or cyclone. In the USA, we call strong storms hurricanes.

6. Who was Saffir-Simpson, and why should I care? Saffir was an engineer, Simpson a meteorologist. Together they created a scale, from 1 (75 MPH winds) to 5 (160 MPH and up) based on the damage winds cause to buildings. Learn more <http://www.nhc.noaa.gov/aboutsshws.php>

7. Which is worse -- a tornado or a hurricane? At bitly.com/2x0mryb you learn that a tornado can have much stronger winds, but a hurricane can cause more damage due to floods. And hurricanes can cause tornadoes, making them worse.

APPLICATION:

1. Make a plan for a storm. Visit <http://www.ready.gov/kids> where you can learn how to get your house ready for a big storm. You can also play games, like the word search on the right.

2. Explore the forces in a hurricane. At <http://bit.ly/2gyxRlC> you learn how to turn two plastic bottles into a micro tornado, caused by the Coriolis effect, a force caused by the rotation of the earth.

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Hurricanes on YouTube

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

<https://www.youtube.com/playlist?list=PLcBVHzUUEKwI6hrFOJlXgDmeitnvDlFh9>



Tech Tips for Back to School

by Warren Buckleitner

Now that school is in session, here are a few things to think about (content recycled from a WOSU discussion with Ann Fisher, online at bitly.com/2xBNyMK). Here's what we covered.

For K-12

- **Smarten up your bookmarks.** Increase the chance of staying in tune with your school with one click/touch access to the school's sites. This includes your coaches page, your child's dance school and the school absentee reporting page. To make a bookmark, go to the page you want to remember, and drag the URL to your bookmark bar. You can also make folders for each child if you have multiple schools.
- **Make a Family Google calendar.** Put in all your school's dates (teacher conferences, vacations). It can keep caregivers on the same page, and send various types of reminders so you know ten minutes before when band practice is over.
- **Review screen etiquette.** Make sure every child knows how to quickly silence a noise coming from their phone (hint -- press any button). Remind them of the importance of lowering a laptop lid when the teacher is talking... "people are more important than technology."
- **Check your school's phone policy.** Keep phones in lockers or don't take them at all, and teach children to silence cell phones or face the dire consequences.
- **Make a backup Wi-Fi.** Let's face it... Wi-Fi has become the indoor plumbing of the information age. And sometimes -- just when you need it the most -- it can slow to a crawl. So keep some backup locations in mind. This might be a local coffee shop or library.
- **Keep backups of your backups.** Backup important work. Apple's Time Machine is a godsend and you can keep essential work in the cloud (e.g., Google Drive works well; and dropbox gives you some free starter space) and invest in a portable hard drive, like this 1 TB model from B and H for about \$60 bhpho.to/2xBPGnM.
- **Stock your printer.** Yes you still need them for things like signed permission forms or schedules. Believe it or not, some teachers still like printed reports. Make sure you have extra paper and printer ink.
- **Get a haircut...** and a good mechanical pencil. You still need to doodle.

For college students, also add...

Ask your professors which computers and/or software they recommend. Find out if you can get a student discount on new purchases.

And finally ... Get a good laptop.

Your horse for the digital age is your laptop. Get a good one and you'll go far. We've had great luck with the MacBook Air and more recent \$1500 and up MacBook Pro. However, the latest generation of Chromebooks combine a nice mix of power and durability, for a fraction of the cost of a Mac. Prices range from \$200 to \$500; and the latest models can transform into a large multi-touch Android tablet. That means -- you can run Toca Boca apps on your Chromebook. Check out our review of the Acer Chromebook Spin 11 (\$400, Acer) <http://reviews.childrenstech.com/ctr/review.php?id=19717>.





Feature Reviews and New Releases

SEPTEMBER, 2017

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 Spin 11

OK let's be clear -- this amazing new Chromebook doesn't actually "spin." But it does do a backflip, turning itself into a responsive tablet -- able to provide a multi-touch experience with Android apps. Acer Chromebook Spin 11 (otherwise known as the R751TN-C5P3) is an excellent, powerful, affordable option for the growing number of students who rely on Google services. Features include a hinge that lets the 11.6-inch work like a tablet. The screen is antimicrobial. The computer is powered by and Intel Celeron processor. Ports include two USB Type-C (supporting USB 3.1 Gen 1); USB charging, DC-in, DisplayPort; two USB Type-C. Learn more at <https://www.acer.com/ac/en/US/content/model/NX.GNJAA.002>

Details: Acer of America, www.acer.com. Price: \$400. Ages: 3-up. Platform: Android. Teaches/Purpose: a tablet/laptop. Rating (1 to 5 stars): 4.4 stars. Entry date: 8/29/2017. []



Ease of Use	9	88%
Educational	10	
Entertaining	N	
Design Features	10	
Good Value	10	

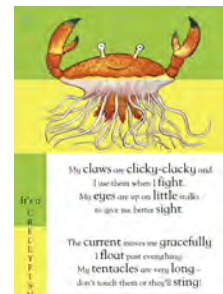


Axel Scheffler's Flip Flap Ocean

What do you get if you cross a whale with a jellyfish? (a "whellyfish"). This sixth in the Axel Scheffler's Flip Flap series from Nosy Crow is designed just like the others. Content includes funny ocean themed poems and 121 silly animal names and combinations. The same intuitive, swiping mechanism is all you need to learn, making this a great starter app.

The poems and animal artwork come from Axel Scheffler, a popular UK illustrator. We liked how you can swipe any part of the screen (either the picture or the poem) to create a new combination. A companion split-page print edition of Axel Scheffler's Flip Flap Ocean has also been published by Nosy Crow. If you like the app, you'll love the book-- and vice versa.

Details: Nosy Crow, www.nosycrow.com. Price: \$0.99. Ages: 2-up. Platform: iPad, iPhone. Teaches/Purpose: language experience, reading, rhyming. Rating (1 to 5 stars): 4.8 stars. Entry date: 8/22/2017. []



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

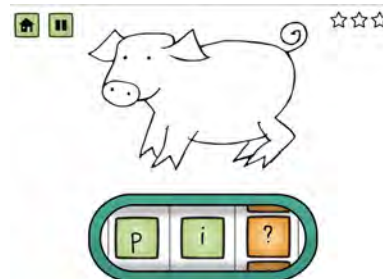


Bob Books Spin and Spell

Looking for clean CVC practice? This is a good app to consider, especially for very early readers. Designed to introduce early readers to consonant-vowel-consonant words, this app first presents a black line image (e.g., "Pig") along with a scrambled set of letters. By spinning the words, slot machine style, children can build the word. If they do, the scene is filled with color. There are no gimmicks in this app making it good for classroom use.

The app has a lot of repetition, picture-word association, and focusing on specific parts of 50 three letter words. Some of the words are unconventional, and it is not possible to have accounts for multiple children. An options menu lets you turn off/on the background music. This app would get higher ratings if the spinner was easier to use (we wanted the letters to snap into place) and if the app gave you a better idea on your level. Early reading teachers should consider this app.

Details: Bob Books, www.bobbooks.com. Price: \$1.99. Ages: 3-5. Platform: iPad, iPhone. Teaches/Purpose: writing, spelling, reading, CVC. Rating (1 to 5 stars): 3.7 stars. Entry date: 8/1/2017. []



Ease of Use	7	74%
Educational	8	
Entertaining	7	
Design Features	7	
Good Value	8	

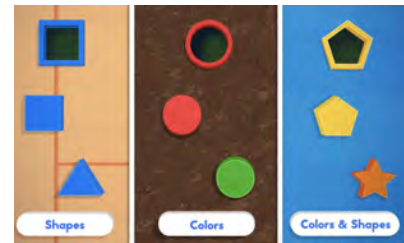


Busy Shapes & Colors

Busy Shapes & Colors is designed to help young children learn the names of 11 shapes, 11 colors and all their combinations. There are four play modes: colors only, shapes only, shapes & colors or "focus" on only one color/shape and is available in 15 languages. The app is free to download as a sample.

The full version requires a iAP. The free version includes 10 levels of each one of the 3 play modes. The full (paid) version contains 120 new levels covering 121 combinations of shapes and colors. As children play, they will discover penguin animations. Animations can be disabled in the settings. Busy Shapes & Colors will be added to Montessori Preschool, Edoki's subscription based world.

Details: Edoki Academy, www.edokiacademy.com. Price: \$free with IAP. Ages: 2-5. Platform: iPad, iPhone. Teaches/Purpose: logic, colors, shapes. Entry date: 8/24/2017.



CodeSpark Academy With The Fools

8/29/2017 Update May 2017 CodeSpark Academy is free to schools, and sold by subscription to homes for \$7.99/month. Up to three children can share the subscription.

Update May 2015: 18 new levels have been added, along with two new characters with pets (Astronaut with space puppies and Chef with pig). There are two new worlds to explore - Space and Restaurant, and five new commands and two new events (including IF statements). New activities let you help Astronaut Foo collect her lost space puppies and help Chef Foo cook up delicious food for his friends.

Easy to learn, and full of playful characters, this early programming for iPad mixes an Angry Birds type of leveling system with Scratch-style programming icons. In order to move your "Foo" character across the screen to a star, you must drag and drop the correct sequence of commands in the right order. Everything happens in realtime, so it's easy to experiment. There's also a handy stick of dynamite -- just in case.

There are 5 Foo characters (Chef, Cop, Builder, Doctor and Ninja) and two sandbox areas. Each character has unique abilities and structured levels designed to introduce a concept.

You jump into the first 8 levels, during which you earn your first "event." The interactions between the characters can get silly which keeps things interesting. This is one of the key strengths of this app. In terms of actual coding, it's very limited. You get just four lines of code, which are tied to four events per player, for example. Also you can't adjust the sounds.

When you finish the levels, you can print a certificate that says you've finished your "hour of code", found at www.code.org by way of an external link. CodeSpark is an IdeaLab company, an incubator started by Bill Gross (the guy who started Knowledge Adventure). We're not sure how this game makes money. We suspect that this is just one level, and future levels will be available as in app purchases. It also isn't clear if this is a not-for-profit (per the .org). See also Lightbot Jr., ScratchJr., Hopscotch and Tynker for similar types of experiences for iPad.

Details: CodeSpark, www.codespark.org. Price: \$7.99/month. Ages: 5-8. Platform: iPad, iPhone, Android, Kindle, Mac OSX, Internet Site. Teaches/Purpose: coding, math, creativity. Rating (1 to 5 stars): 4.8 stars. Entry date: 11/4/2014. [buckleit]



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





Doodle Buddy

We reviewed this free drawing app because it was referenced in an academic journal. There are a variety of stamps, including lady bugs, soccer balls and pumpkins along with a variety of colors, shapes and sizes. But there were also advertisements designed to appear whenever you used one of the menus.

We were sad to see that the article authors recommending an experience full of ads. Yes, you can make simple doodles. But the ads make this a poor choice.

Details: Dinopilot, <https://pinger.zendesk.com/hc/en-us/sections/200684234-Doodle-Buddy-FAQs>. Price: \$free with ads. Ages: 3-up. Platform: iPad. Teaches/Purpose: art, drawing, creativity. Rating (1 to 5 stars): 1.8 stars. Entry date: 8/8/2017. []



Ease of Use	4	36%
Educational	4	
Entertaining	4	
Design Features	4	
Good Value	2	

Fingerlings Baby Monkeys

Powered by 4 button cell batteries (this six inch tall critter can hug your finger using low-tech rubber arms. Sensors respond to sound, motion and touch; serving up 40 monkey sounds. Motions include the ability to turn the head and open/close eyes. Comes in six colors and personalities.

Details: WowWee USA, Inc., www.wowwee.com. Price: \$15. Ages: 5-up. Platform: . Teaches/Purpose: . Entry date: 8/29/2017.



Harald and the Tortoise

Beautiful illustrations are mixed with an "I Spy" style play pattern, in this eight screen story app.

As you explore, you may be asked to find specific items on the page in order to progress. This might include matching items to their outlines.

A visual table of contents lets you jump to any page you like. Your mission is to find a beautiful blond fairy (note the potential stereotyping).

The first three (of eight) pages are free; you can unlock the rest for a single \$1.99 IAP. Learn more at <http://www.midnightpigeon.com/haraldandthetortoise.html>

Details: Midnight Pigeon, www.midnightpigeon.com. Price: \$free, \$1.99 IAP. Ages: 2-4. Platform: iPad, iPhone, Android. Teaches/Purpose: reading, logic, matching, spatial relations. Rating (1 to 5 stars): 4 stars. Entry date: 8/18/2017. []



Ease of Use	7	80%
Educational	8	
Entertaining	8	
Design Features	8	
Good Value	9	



Mr. Brown Can Moo! Can You, Too?

Twenty screens are full of silly, fun high frequency words and original Dr. Seuss illustrations, in this early reading experience.

This is a "Read and Play" version of the story, meaning you can freely explore each page, tapping any illustration or word to see the printed label and hear a clear pronunciation. A star is hidden in the illustrations, allowing you to play with one of 12 short structured phonics games. As a result, this is an excellent app for beginning readers of English because of the way that it mixes light structured practice with new vocabulary.

Be sure to explore the parent options where you can toggle on/off the Read To Me features. There's also an Auto Play feature. Other features include the ability to track minutes spent reading, and see which pages were read. Content includes 12 mini-games, including Memory Match, Jigsaw Puzzle, and Word Search and Sequence.

Need to know: If you're looking for a rich story, this is not your app. This is better used for developing early decoding skills.

Details: Oceanhouse Media, www.oceanhousemedia.com. Price: \$3.99. Ages: 2-12. Platform: iPad, iPhone. Teaches/Purpose: reading skills, decoding, phonics. Rating (1 to 5 stars): 4.7 stars. Entry date: 8/18/2017. []



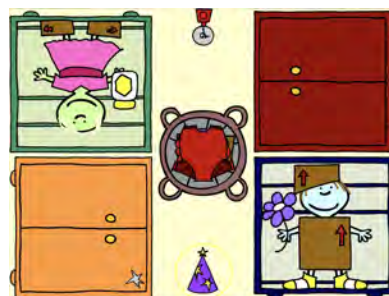
Ease of Use	9	94%
Educational	9	
Entertaining	9	
Design Features	10	
Good Value	10	



Poppetto Varia

Designed for one up to four players, this is a strategy game that was designed in the Netherlands. The illustrations are simple; the instructions complex. There is also a creative component where you can design your own puppet. Go with Tripleetto (by Studio Lassa) instead.

Details: Studio Lassa, studiolassa.nl/StudioLassaApps/index_en.php. Price: . Ages: 4-up. Platform: . Teaches/Purpose: logic. Rating (1 to 5 stars): 2 stars. Entry date: 8/3/2017. []



Ease of Use	3	40%
Educational	5	
Entertaining	4	
Design Features	4	
Good Value	4	

Rudi Rainbow and the Lost Colors

This is a nicely narrated ebook (also called Rudi Rainbow Fun Learning App) playfully brings up the topic of weather and space. You'll find 40 scenes (pages) featuring 14 weather-themed characters with names like Eric Earth, Carl Cloud and Stella Star. As you move through the story, you discover each color of the rainbow along with scientific weather facts ("light from the Sun hits the earth after about eight seconds") and some short games. Some of the pages contain interactive features that can be low in child control (they feel didactic). While the interactive design of this app is limited, the illustrations are good, and there's enough content to keep things interesting. Did you know, for example, that "frogs get louder right before rain?"

Need to know: This app could benefit by removing some of the verbal coaching. In addition, fiction and science fiction are readily mixed in the story.

Details: Hello, November GbR, rudirainbow.com. Price: \$2.99. Ages: 5-8. Platform: iPad, iPhone. Teaches/Purpose: weather, science, language, reading. Rating (1 to 5 stars): 4 stars. Entry date: 8/15/2017. [buckleit]



Ease of Use	9	80%
Educational	7	
Entertaining	8	
Design Features	8	
Good Value	8	



Sago Mini Hat Maker

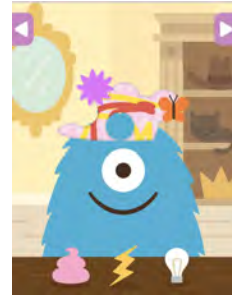
This ideal starter app provides a safe, gimmick-free creative experience that even a toddler (or 40 year old parent) can understand.

You start one of six Sago characters. You can then try on different hat outlines, and then cut, build, decorate, paint or carve the hat. Completed work can be tried on providing your tablet has a camera. practice numbers and counting with the cash register. There's not much to do, but the simple design makes it easy to feel creative.

Like other Sago Mini apps, Hat Maker is very well designed, with some noteworthy nice touches. The characters react to their new hats in real time, and pose for a photo with their new hat in front of different backdrops.

Content includes 15 hat shapes which can be tried on six animal characters, including Larry the Log. This app works without Wi-Fi and contains no in-app purchases or third-party advertising. You can download this app individually or access it as part of Sago Mini World (with a \$4.49/month subscription).

Details: Sago Mini, www.sagomini.com. Price: \$2.99. Ages: 2-6. Platform: iPad, iPhone, Android, Kindle. Teaches/Purpose: creativity, spatial relations. Rating (1 to 5 stars): 4.9 stars. Entry date: 8/8/2017. []



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

