Teachers: 5 of the best audio visual technologies for the new school year

© August 4, 2015 (http://www.kwipped.com/blog/5-best-audio-visual-technologies-for-the-school-year/)   ▲ Amanda Taylor (http://www.kwipped.com/blog/author/ataylor/)

Audio visual technology and innovation offer some amazing tools for advancing educators’ ability to engage students in a variety ways. While some high-tech teaching aids may fall outside typical school budgets, others are surprisingly affordable and generate a high educational ROI. Here are some emerging audio-visual technologies for the K-12 classroom in 2015 (in no particular order).

1. The Asus Chromebook Flip

“A Chromebook with Hybrid Chops”
The recently released Asus Chromebook Flip is a tablet-laptop hybrid is changing the way educators teach and manage their classes. The recently released Asus Chromebook Flip, is a tablet-laptop hybrid. Though many schools have purchased iPads, the Chromebook Flip proves to be a better, more affordable option for learning. Flips are extremely durable, with an average life of 3 years. Like a tablet, it is portable and has a touchscreen, but the addition of a keyboard allows freer word processing—a must for students.

With a 10.1 inch display, the Asus Chromebook Flip provides a great experience for educators and students. It is approximately 2 pounds with a strong aluminum body. The average battery life is a whopping 9 hours. Retail price is around $250 per Flip. Lifespan is around three years. As Lisa Nielsen points out in her blog, The Innovative Educator (http://theinnovativeeducator.blogspot.com/2015/07/flipping-for-new-chromebook-for-todays.html):
“This means for $100 a year you have outfitted your students with all the supply (singular intentional) they need. And, it’s not just a replacement for traditional supplies. Instead, it provides the functionality of traditional devices and it is also a powerful creation tool that enables them to collaborate and connect with the world.”

**Bonus:** Sign up for Google Classroom for added functionality.

**Example project:** Have students draft stories or create presentations while you edit in real time. Or, have a thought leader give a guest lecture remotely through video chat.

**2. NEC Display Solutions of America UM351W Ultra Short Throw Projector**

NEC’s UM351W, winner of rAVe’s annual Best of InfoComm Awards is a great choice for classroom projectors. The device can be used as an interactive Surface with no external computer required. How? The projectors include two interactive pens and one receiver.

The projectors come with an auto-calibration feature which makes alignment simple. Its “ECO Mode” increases lamp life up to 6,000 hours. It ships with NEC DisplayNote Software, which enables both teacher and student to collaborate, edit, and participate in lessons.

**Example project:** Project a short story onto your classroom’s standard whiteboard using the NEC UM351W Projector. Have the students collaborate by drawing images that come to mind to represent challenging words.

**3. Ricoh Interactive Whiteboard D5510**
“There are virtually no more boundaries to collaboration, except the ones you want to enforce.”
Group Vice President Matt Sakauchi.

The Ricoh Interactive Whiteboard D5510 is a cutting-edge interactive whiteboard that allows educators or students to create drawings, documents, notes and other designs on its 55-inch HD screen. Teachers can allow students (on-site or remote) to take part in real time via a virtual private network. Content can be also uploaded through external drives or PCs. The board allows editing in real time—resize, move, or rewrite any information on the whiteboard. You have the option to connect other Ricoh boards, computers or connect to conferences via cloud.

The feature that really sets the Ricoh Interactive Whiteboard apart, is its HDMI and high-resolution color.

The Ricoh Interactive Whiteboard is a substantial investment: The retail price is a little over $7,000 not including the stand or collaboration license, however, if the budget is available for this whiteboard, the features and capabilities make it an excellent value.

Example project: Check out the variety of lessons/uses geared towards interactive whiteboard learning: http://www.teacherled.com/all-interactive-whiteboard-resources/

4. MC Squares

MC Squares (http://www.mcsquares.com/) is a new way for students to share their ideas. Perhaps less high tech than some of the other technologies listed in this article, MC Squares allows each student to control their own “piece” of the whiteboard. Once individual whiteboards are complete, they attach to the wall. The end result is a massive whiteboard built of different components.

MC Squares comes with a corresponding app that will take a photo of the final board then dissect individual boards. The boards are extremely versatile, customizable, and a great way to get your class participating! The costs for one square is $40 dollars.
Example project: Have each student solve a problem their own way, and display different solutions on the white board.

5.Raspberry Pi

The recent trend (http://www.nytimes.com/2014/03/24/world/europe/adding-coding-to-the-curriculum.html?_r=0) to teach coding skills has fueled many great inventions, for example, the upcoming release of Jewelbots (http://www.jewelbots.com/) — a programmable friendship bracelet targeted at teens and preteens. A long time predecessor of newer coding devices, is the Raspberry Pi. Raspberry Pi, a tiny computer built on a single circuit board, with a microprocessor, memory, input/output (I/O), is still a great way to introduce coding and basic engineering skills to students.

Raspberry Pi can be used for dozens of fun, hands-on projects including learning to code in Python or Scratch. A list of projects (http://www.cnet.com/how-to/25-fun-things-to-do-with-a-raspberry-pi/) can be found on C|Net. Hook it into your TV, computer, or other electronic devices to unleash new possibilities.
If you’re thinking Raspberry Pi may be too complicated to set up and manage for your classroom, think again— the superior documentation (https://www.raspberrypi.org/learning/teachers-classroom-guide/) provides user-friendly guidance and simple instructions. The device has been around for a few years, so well developed applications and projects are abundant. No additional hardware or software are required. Each tiny computer is about $35 dollars, making it an affordable learning enhancement.

**Bonus:** The Raspberry Pi is a registered educational charity—100% of the profits go back to their foundation. From their website: “The Raspberry Pi Foundation is a registered educational charity (registration number 1129409) based in the UK. Our Foundation’s goal is to advance the education of adults and children, particularly in the field of computers, computer science and related subjects. See our stories page for more information about the Foundation’s charitable work.”

**Example project:** Create a “Fart Detector” (https://www.raspberrypi.org/learning/fart-detector/) using a rudimentary digital to analogue converter, and Python programming.

---

**See schools making waves in EdTech**— EdSurge has highlighted schools in the Boston, MA area, discussing the tech they use and how they use it. Read the article here:

https://www.edsurge.com/n/2015-06-09-edtech-revolutionaries-spotlight-on-six-boston-area-districts