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MEDIA RESOURCES FOR ALL LEARNERS

CABLE, WEB, AND MULTIMEDIA PROGRAMS HELP TEACHERS REINFORCE EVERY LESSON FOR EACH STUDENT. BY EMILY S. ROGAN

Special education teacher Nancy Keck comes up with hands-on, interactive activities to make math more enjoyable.

EDUCATOR SPOTLIGHT

Nancy Keck
Special needs math teacher
Greenwood Lakes Middle School
Lake Mary, FL
Cable provided by Bright House Networks

Joan Turner
Reading teacher
Westwood Middle School
Winter Haven, FL
Cable provided by Bright House Networks

Betty Napoli
Instructional technologist
Galloway Township Public Schools
Galloway, NJ
Cable provided by Comcast

Joyce Valenza
Library information specialist
Springfield Township High School
Erdenheim, PA
Cable provided by Comcast

Ed Sickles
Chairperson, developmental language program
Perkiomen School
Pennsburg, PA

There is often a surprise awaiting Nancy Keck's middle school math students when they enter her classroom. Keck's students—all of whom have specific learning disabilities—might find themselves interviewing the producer of Discovery's *Planet Earth*, conducting interactive experiments with Mr. Wizard, or chatting with an astronaut through online tools like the Discovery Educator Network live webinars. Keck, a 2007 Bright House Networks Star Teacher from Lake Mary, Fla., uses cable television, the Internet, digital cameras, and a projection system to come up with interactive, hands-on activities to teach math. "I teach by strand areas," says Keck. "I just hit them in a different way."



Using technology in interesting ways makes math class a favored destination for Keck's students.

For one project, Keck's students followed an Animal Planet program like a soap opera, keeping track of the animals and their families. The math lesson emerged through the bar graphs and data the students created to monitor the animals' activities.

"I see what programs are out there, tie them into something from the real world, and then look for the math," says Keck. This outside-the-box teaching has resulted in improved test scores and more. "I've seen my kids placed in a co-taught classroom, and you cannot tell them apart [from the typical learners]," she says. "Our test scores have gone up, and my students are used to problem solving."

REACHING EVERY STUDENT

Differentiation, or the ability to tap into many different students' learning styles within a single classroom setting, becomes even more challenging when those students have special needs. But thanks to technology and other resources, there are many ways teachers can connect to students with different abilities and learning styles.

"Technology is the great equalizer," says Karen Janowski, an assistive and educational technology consultant in Reading, Mass. "It promotes independence, removes the obstacles to learning, and gives students an alternative way of showing what they know."

On her wiki UDLTechToolkit that she created with library information specialist Joyce Valenza, and in her blog, TeachingEveryStudent, Janowski highlights free tools and successful approaches that teachers can use to reach various learners. Among her examples are GenieBooks, which offers PowerPoint versions of "decodable books" to promote literacy; and Thinkature, which provides visual diagramming to help challenged learners understand complex ideas. "We have to equip our students for their futures. By making these free tools available, classrooms will be transformed," says Janowski.

That transformation is already happening in classrooms around the country. According to Joan Turner, a special education reading teacher at Westwood Middle School in Winter Haven, Fla., "The push in education is to hit every learning style and every diversity," she says, "and what all kids today have in common is that they're technical people."

Turner typically bases her lessons on programs

from the Discovery or History cable channels and then adds in websites and interactive tools. That way, whether the student has a visual or hearing disability or has difficulty sitting still, there is a way for that child to connect with the lesson. Even English language learners (ELL) can benefit from viewing video images and information on websites without fully understanding the language, because media itself is so familiar to them, she says.

Susan Alyn, a certified teacher of English for speakers of other languages (ESOL), created a free online magazine to help teachers reach ELL students. Alyn's e-magazine, Inspiration Lane, offers daily activities and lessons geared toward ELL and ESOL students. The site is updated daily and provides a quote of the day and a daily historical note, as well as suggestions for teachers to use the information.

At Galloway Township Public Schools in New Jersey, a diverse school district not far from Atlantic City, most first through eighth grade classrooms have the technology to differentiate instruction. According to Betty Napoli, the district's instructional technologist, every homeroom class-

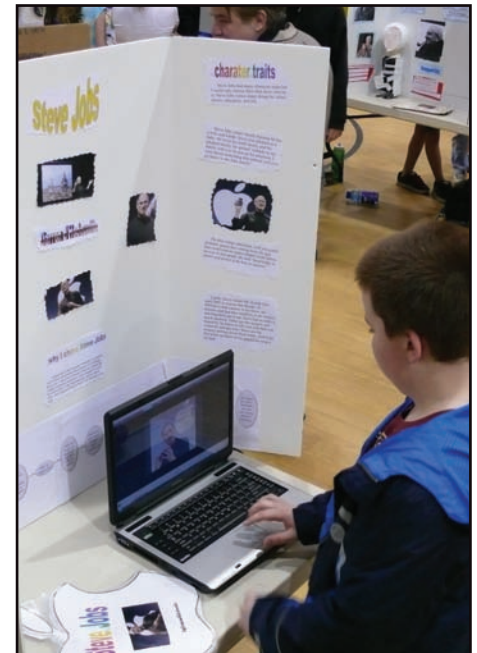
TECHNOLOGY IS THE GREAT EQUALIZER. IT PROMOTES INDEPENDENCE, REMOVES THE OBSTACLES TO LEARNING, AND GIVES STUDENTS AN ALTERNATIVE WAY OF SHOWING WHAT THEY KNOW.

room has a computer with Internet access and a ceiling-mounted LCD projector and screen. Among other uses, teachers use these to show clips from Discovery Education *streaming*, a video-streaming service that features thousands of programs related to curricula. Clips are available with Spanish subtitles as well as closed captions for students with auditory impairments or reading issues.

Right now, Galloway teachers are piloting an innovative program. The district purchased 60 iPods, to be divided among five schools; students learning English can select a podcast, listen to words and phrases, and record their own voices back into the iPod (using Belkin recorders) to hear how they compare to the original audio. It is similar to using interactive flashcards, says Napoli, and

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At Galloway Township Public Schools, most classrooms have laptops and Internet access so teachers can tailor their instruction to each student.



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Special educator Ed Sickles builds entire lessons around *CNN Student News*.

the iPods make it possible to compare students' growth from the beginning to the end of the year.

The iPods also can be used to help students struggling with mathematics, reading, and writing. "Students can listen to books using the iPod while reading along in the text," Napoli says. For math, they listen to rap songs with lyrics about math facts. "In the past, they listened to these math-fact songs on cassette tape. Using an iPod allows them to listen from anywhere in the room instead of at a specific listening center. This is much more motivating for them."

USING THE NEWS

Ed Sickles, a longtime special educator, has used *CNN Student News* in his classroom for years. "Technology allows kids to be close to the world—no matter where they are," he says. Now chairperson of the developmental-language program

cable-based classroom lessons "make the playing field more level, so they feel good about themselves," he adds.

Whether it's a wiki created by teachers and students that helps struggling learners review notes and class work, closed captioning for ESL students so they can listen to text and follow along, or text-to-speech software that lets a developing reader listen to information and concentrate without decoding, teachers are using technology to reach challenged learners and finding methods that don't exist in a traditional textbook or lecture classroom setting, says Janowski. A classroom with cable and Internet access opens doors for everyone in it.

"Now we're giving kids the tools to choose which one they need, depending upon the situation," she says. "Promoting independence equips and empowers students and allows teachers to address the needs of all students in their classroom."

WE'RE GIVING KIDS THE TOOLS TO CHOOSE WHICH ONE THEY NEED, DEPENDING UPON THE SITUATION.

at the Perkiomen School, a college-preparatory school in Pennsburg, Penn., Sickles teaches note taking, organizing, and processing skills to a small group of students who need individualized attention.

For Sickles, *CNN Student News* is the perfect tool. He uses the 10-minute broadcasts, teachers' notes, maps, and website suggestions to build an entire lesson, incorporating geography, newspaper reading, vocabulary, and current events. "Some kids have sequencing issues," he says, "and *CNN Student News* lets them put events into chronological order and gain perspective on the world."

In addition, Sickles emphasizes that the program provides a multimodal approach that helps students with challenges learn. For example, a student with auditory-processing difficulties can both see and hear information simultaneously, which will strengthen the student's ability to retain facts. For those kids who feel self-conscious about their individual learning styles, these

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RELATED RESOURCES

Discovery Educator Network

[Free registration required]
community.discoveryeducation.com

EdTech Solutions: Teaching Every Student

teachingeverystudent.blogspot.com

Free Technology Toolkit for Universal Design for Learning (UDL) in All Classrooms

udltechtoolkit.wikispaces.com

Inspiration Lane

inspirationlane.blogspot.com

livescribe

livescribe.com

Mrs. Keck and Mrs. Dilmore Classroom Blog

nancykeck.blogspot.com

TeachWithGrace

teachwithgrace.com/TWG/Home.html