Students today enter an increasingly globalized world and workforce in which technology plays a vital role. They must be good communicators and great collaborators. They also need a strong sense of responsibility, as well as interpersonal and project-management skills that demand teamwork and leadership. No matter how sophisticated classroom tools are and how well students meet targeted standards, students often need assistance in developing better learning and thinking skills, information- and communications-technology literacy, and dexterity in handling diverse life situations to succeed in the 21st century.

Engaging students, garnering results

Teachers empower students with 21st century skills using project-based learning and Adobe® software
“More than just building simple websites where students and teachers can post information, Adobe software can make project-based learning a reality to radically transform and improve the educational experience.”

Linda Ferguson, director of the Geo-Literacy Foundation, technology coordinator, teacher, and trainer, San Juan Unified School District

Enter project-based learning (PBL), designed to put students into a students-as-workers setting where they can learn collaboration, critical thinking, written and oral communication, and the value of a strong work ethic—all while meeting state and national content standards. At the San Juan Unified School District (SJUSD) in Northern California—which serves more than 40,000 students in 72 schools—5th and 6th grade students are engaged in meaningful, rigorous, and integrated project-based learning, facilitated by Adobe Creative Suite® 4 Master Collection, Adobe Buzzword®, and Adobe Photoshop® Elements software.

“We’ve reached a genuine tipping point where educators are using technology—and Adobe software in particular—to achieve learning objectives. More than just building simple websites where students and teachers can post information, Adobe software can make project-based learning a reality to radically transform and improve the educational experience,” says Linda Ferguson, director of the Geo-Literacy Foundation & technology coordinator, teacher, and trainer for SJUSD.

**A grassroots initiative with strong community ties**

Along with teachers Kay Gilly and Joni Stein, Ferguson—who is also an Adobe Education Leader—has championed a project-based learning program for nearly four years called *A Healthy Watershed – A Healthy Community*. The San Juan Education Foundation provides funding for the project through its science, technology, and the arts (STARs) learning grants. The foundation’s goal is to advance education for SJUSD students in partnership with parents, educators, business, and the community.

Adobe software and the project-based approach turn passive learners into active participants, ignite innovation, and make education more compelling, personalized, and accessible. Students create models, videos, and write reports using Adobe software to demonstrate their understanding of key concepts throughout the program. The students can gain a richer understanding of environmental science by illustrating basic concepts, and their insights are often accompanied by a newly discovered enthusiasm for the subject.

“The San Juan Education Foundation is a grassroots organization that provides funding for effective project-based learning solutions,” says Ferguson. “Based on our successful work with integrating technology into education, students’ progress, and the formation of strong alliances with the community, we are confident about extending our funding into the future and expanding our presence more fully within the district.”

**Forging a district-wide model for project-base learning**

*A Healthy Watershed – A Healthy Community*, which currently involves roughly 100 students, starts at Albert Schweitzer Elementary School. Students build an understanding throughout the school year of the environmental issues affecting the local, regional, and statewide fresh water supplies, focusing on the American River watershed. Students are tasked with answering...
Adobe solutions help students compile and present their watershed findings. Adobe Buzzword is used to write reports and Acrobat Pro to prepare reports in PDF for printing or posting to the web. Student use Photoshop Elements for image layout and digital storytelling and Photoshop CS4 Extended to resize images. Advanced students take imagery and live video footage into Adobe Premiere Pro and Soundbooth to create audio and video overviews of projects. Templates created in Adobe Dreamweaver CS4 help students post their work on the program site and Adobe Flash Professional is used to animate text files.

The overarching question: “How do our local rivers affect and shape our communities and the wildlife that rely on them?” The project continues into John Barrett Middle School where second-year students extend their understanding of important issues involved in managing water resources and begin to see how people must work together to meet the needs of a growing community. Students step through a process of discovery that involves research, experimentation, field trips, self-expression, and learning through community service. Throughout the process, students learn how to make more informed decisions for themselves and the future well being of their community. Teachers involved with the program are working to form an alliance with a district high school to support a more widespread, district-level model for project-based learning that will help students advance their knowledge and extend their skills through each progressive grade level.

Communicating complex concepts through technology

A Healthy Watershed – A Healthy Community aligns closely with state standards for the 5th and 6th grades, including Earth Science, Life Science, Investigation and Experimentation, Research and Technology, Language Arts, Organization and Delivery of Oral Communication, and Visual Arts. The project provides students with an understanding of the issues surrounding the American River watershed, while building the processing skills necessary to evaluate a complex problem and present their finding in several formats. Adobe software helps students compile and present their findings. The elementary and middle school students write reports using Adobe Buzzword, the free online word processor that is part of Acrobat.com. Buzzword looks and behaves like a desktop word processor, but it operates inside a web browser, so there is no software installation required and students can work on their reports from any place with Internet access. Teachers can comment on the documents using a rich set of markup tools to provide students with constructive feedback. Students use Adobe Acrobat® Pro software to prepare reports in Adobe Portable Document Format (PDF) for reliable printing or posting to the web.

Adobe Photoshop Elements is used for image layout and digital storytelling. Students construct charts, graphs, and images for slide shows and other presentations that demonstrate concepts and use Adobe Photoshop CS4 Extended to resize images for publishing to the web. More advanced students take imagery and live video footage into Adobe Premiere® Pro and Soundbooth® CS4 software to create detailed audio and video overviews of projects. Many produce striking, sophisticated pieces that look like professional news broadcasts.

San Juan Unified School District
Sacramento, California
www.sanjuan.edu
http://watershed.geolit.org/

Challenge
• Empower students to succeed in the 21st century
• Make education more compelling, personalized, and accessible
• Help students learn collaboration, critical thinking, written and oral communication, and the value of a strong work ethic
• Meet or exceed state and national standards
• Attain funding and expand program

Solution
• Equip students with Adobe Buzzword, Creative Suite Master Collection, and Photoshop Elements software to demonstrate their understanding of key concepts
• Employ a project-based learning approach that meets defined standards
• Build strong ties with community organizations
• Find grassroots funding sources

Benefits
• Built 21st century skills such as technology literacy
• Transformed students from passive observers into active participants
• Successfully integrated technology into the classroom to ignite innovation and enthusiasm
• Defined a successful project-based learning approach
• Met standards on multiple levels
• Obtained funding and expansion from K-12 in progress

Toolkit
• Adobe Creative Suite 4 Master Collection. Components used include:
  • Adobe Acrobat 9 Pro
  • Adobe Dreamweaver CS4
  • Adobe Flash CS4 Professional
  • Adobe Photoshop CS4 Extended
  • Adobe Premiere Pro CS4
  • Adobe Soundbooth CS4
  • Adobe Buzzword
  • Adobe Photoshop Elements
• Platform: Mac and PC
I watch the 5th and 6th graders, and I am amazed at their fearlessness, natural technical ability, and increased learning engagement when they are using Adobe software.”

Linda Ferguson, director of the Geo-Literacy Foundation, technology coordinator, teacher, and trainer, San Juan Unified School District

Students use templates created in Adobe Dreamweaver® CS4 to post their work on the program site at http://watershed.geolit.org/. They are also tapping into Adobe Flash® CS4 Professional software to edit text files that are automatically animated using pre-developed scripts. “When students see how Adobe Flash Professional automatically animates text, they see the connection between the software code and the animation and gain a basic understanding of the power of software programming at an early age,” says Ferguson.

Preparing students for the professional world
With the possibility of expanding the program to high school students, Ferguson expects students to become even more adept in their use of Adobe software. Ultimately, she expects that high school students will be able to earn Adobe software certifications to boost their professional skills and enhance their career prospects.

Whether they are just starting out in 5th grade or gaining in-depth expertise in Adobe software, Ferguson attributes much of her success to the technology Adobe delivers to the classroom. She notes that Adobe software accommodates a wide range of technical abilities and gives students an easy starting point as well as the ability to expand their skill sets to become exceptionally advanced in their use of technology for communications.

“Whether students are just starting out or have a lot of technology experience, they can recognize the basic interface and functionality of the software right away, and transfer it to the full range of integrated software Adobe offers,” says Ferguson. “I watch the 5th and 6th graders, and I am amazed at their fearlessness, natural technical ability, and increased learning engagement when they are using Adobe software. I can’t wait to see what happens when this and similar project- and technology-based learning programs thrive and grow across other school districts across the nation.”