



Creating 21st Century Classrooms

The Ed Tech ARRA funds provide an unprecedented opportunity to implement 21st century classrooms using innovative strategies that enhance instruction, facilitate teaching and learning, and improve student achievement.

Tech4Learning is an essential partner in helping you realize the goals of the Enhancing Education through Technology Program. Tech4Learning can help you implement a sustainable program for:

- Using project-based learning in classroom instruction to prepare students for the increasingly complex life and work environments of the 21st century, which will require high levels of creativity and innovation, critical thinking and problem solving, and collaborative reading, writing, and communication;
- Acquiring and training teachers to use instructional software that is effective with a diverse student population, particularly that is accessible to English language learners and students with disabilities, and engaging and motivating for both struggling and advanced learners; and
- Using school-based technology coordinators and coaches to provide support, technical assistance, and professional development for teachers implementing and integrating technology into their classrooms and instruction.

Using Creativity Tools to Develop 21st Century Skills

Using creative technology tools to design and develop products engages students in their learning, motivating them to master difficult concepts. Developing curriculum products using multimedia technologies leads to knowledge that is “richer, better connected, and more applicable to subsequent learning and events.”¹ Studies show a positive impact on learning when students are required to engage in inquiry, analyze content, construct knowledge, and effectively communicate their learning.²

Tech4Learning’s open-ended tools require students to think creatively as they develop, implement, and effectively communicate new ideas to others. Having students create with video, audio, text, and images provides an opportunity to exercise higher-order thinking skills. Students must critically evaluate both content and media as they frame, analyze, and synthesize information to solve problems and answer questions.³

Project learning with Tech4Learning tools requires students to employ flexibility and adaptability as they reevaluate their work throughout the project process, becoming self-directed learners as they produce quality results.⁴ Working in diverse teams to complete a project on time and meeting assessment requirements helps to build leadership, responsibility, social skills, collaboration skills, and cultural awareness.



Tech4Learning tools are tested and approved by both Smart and Promethean for use with interactive whiteboards.



Support Learning for All Student Populations

The goal of education in the 21st century is not simply the accumulation of knowledge, but the mastery of learning. With today's diverse classrooms, a Universal Design for Learning (UDL) approach to education is essential. Initially intended to address special-needs learners, UDL has become a cornerstone in effective learning by recognizing that every learner is unique and advocating multiple approaches to meet the needs of diverse learners.

Universal design is also a guiding principle in the development of Tech4Learning products. Tech4Learning tools provide students with a wide range of options for expression, allowing students of varied abilities and backgrounds to successfully articulate what they know. Tech4Learning tools help struggling readers, reluctant writers, and English Language Learners showcase their expertise using text, pictures, animation, video, narration, music, and more. If students are using an accessible keyboard with Pixie, Frames, or Share, the board can be programmed for almost all program functions.

Economically disadvantaged students with limited technology experience will find Tech4Learning tools approachable without extensive training. A consistent user interface makes it easy for students to move between tools. Building with technology tools engages students and connects them to their learning. 4 Using Tech4Learning tools, students learn to organize, manage, and evaluate information to create a product, promoting them from information consumers to media producers.

Professional Development with Project-Based Learning

ProjectLearn Academies help educators implement 21st century skills through project-based learning. Achieving 21st century student outcomes in a project-based, learning-oriented classroom requires a significant investment in teacher preparation and training. Tech4Learning's ProjectLearn Academy is designed to provide a strong foundation in designing technology-infused projects appropriate for the classroom. A ProjectLearn Academy immerses participants in a project-based learning environment where they learn to successfully design, manage, and implement project work in the classroom.

Tech4Learning Academies have helped districts in Virginia train school-based technology coaches (called Instructional Technology Resource Teachers) to incorporate project-based learning with technology into classroom instruction. Tech4Learning has worked with both Virginia Beach City Public Schools and Chesterfield County Public Schools to develop sustainable programs for technology professional development that fuse technology to the core curriculum at the school level using project-based learning.

Tech4Learning's professional development models the use of project-based learning to boost achievement in core subjects and develop the learning, innovation, and life skills necessary for students to thrive in the 21st century.



en Español

Frames, Pixie, and Share are localized into Spanish.



**PARTNERSHIP FOR
21ST CENTURY SKILLS**

Tech4Learning is a professional development affiliate of the Partnership for 21st Century Skills.



Make Your Ed Tech Grant Program a Success!

Tech4Learning can make your ARRA Ed Tech Grant program a success, providing tools and professional development that help you maximize the use of these one-time funds to build a sustainable model for classroom innovation. Tech4Learning can help you:

- Reach a diverse population, including economically disadvantaged students, students with disabilities, and English language learners;
- Increase long-term capacity by providing accessible software tools and a professional development model that can be sustained within the organization;
- Accelerate reform by supporting a project-based approach to instruction and professional development;
- Avoid recurring costs with perpetual software licensing and a ProjectLearn professional development model that can be sustained by district personnel.

Selected Resources:

Use these resources to help you learn more about how project-based learning and technology can improve student engagement and motivation, and foster academic retention and application.

1. Lehrer, R. (1993). *Authors of knowledge: Patterns of hypermedia design*. In S. P. Lajoie & S. J. Derry (Eds.), *Computers as Cognitive Tools* (pp. 197-227). Hillsdale, NJ: Lawrence Erlbaum.
2. Newmann, F. M. (1996). *Authentic achievement: Restructuring schools for intellectual quality*. San Francisco: Jossey-Bass.
3. Jonassen, D. H., & Reeves, T. C. (1996). *Learning with technology: Using computers as cognitive tools*. In D. H. Jonassen (Ed.), *Handbook of research for educational communications and technology* (pp. 693-719). New York: Macmillan.
4. Knowlton, D. (2003). *Preparing Students for Educated Living*. In Knowlton, D. & Sharp, D., Eds. (2003). *Problem-based Learning for the Information Age*. San Francisco: Jossey Bass.
5. Means, B., Blando, J., Olson, K., Middleton, T., Morocco, C.C., Remz, A.R., & Zorfass, J. (1993, September). *Using technology to support education reform*. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement. Available online: <http://www.ed.gov/pubs/EdReformStudies/TechReforms/>

