

# 50 Ways to Integrate Technology for PBL and Student Projects

## Resources

- This link provides you with various checklists that can be utilized with students completing project based learning activities. <http://pblchecklist.4teachers.org/>
- PBL online is a one stop solution for Project Based Learning! You'll find all the resources you need to design and manage high quality projects for middle and high school students. <http://pbl-online.org/>
- <http://davidson.k12.nc.us/pbl/pblinfo.htm#what> Provides insight and resources for PBL use in the classroom.
- The Technology Applications Teacher Network <http://www.techappsnetwork.org/> is a resource provided by TEA and supported by the Texas Service Centers. This resource is free to all teachers.
- The National Education Technology Standards (NETS) <http://www.iste.org/AM/Template.cfm?Section=NETS> ISTE offers NETS for both students and teachers to aid in measuring and setting technology goals.
- Tech & Learning Magazine <http://www.techlearning.com/> Contains practical resources and strategies for integrating K-12 technology. Includes articles, blogs, contests, professional development, and more.
- <http://www.vickiblackwell.com/index.html> Vicki Blackwell's Internet Guide for Educators provides technology integration resources, including links for all areas of the curriculum, technology integration activities, staff development materials, and software tutorials.
- Tammy's Technology Tips for Teachers [http://www.tammyworcester.com/Tips/Tammys\\_Technology\\_Tips\\_for\\_Teachers.html](http://www.tammyworcester.com/Tips/Tammys_Technology_Tips_for_Teachers.html) provides technology tips and ideas for integrating technology into the classroom. Check out her tech integration project books for various subject areas and software programs. They are fantastic!!
- <http://www.rmcdenver.com/useguide/pbl.htm> Students today use online resources to design, critique, and present products using interactive technologies. This site provides some guidelines and criteria for evaluating the effectiveness of problem- and project-based learning in your classroom.
- <http://community.discoveryeducation.com/> The Discovery Educator Network provides many resources to educators in the form of lesson plans, a parent corner, puzzlemaker, various types of featured content, contests and much more. If you have access to Discovery Education, you can easily sign up for the DEN after you log in. Be sure to find out about becoming a STAR DEN educator.
- [www.learning.com](http://www.learning.com) Learning.com has expanded its learning resources to include online journals and activities. Educators can not only use these features in EasyTech, Aha Math and Aha Science, but can also create their own based on the content they teach. If you use one of the Learning.com products, be sure to search the curriculum area for "teacher camp" to find some great lessons and activities that are already created for you.

## Website Related

1. Want to take your students on a virtual tour, but can't find what you are looking for? Create your own virtual tour. This link will walk you through the steps.  
[http://www.uen.org/utahlink/tours/tourFames.cgi?tour\\_id=6018](http://www.uen.org/utahlink/tours/tourFames.cgi?tour_id=6018)
2. [Texas Senate Kids](#) is a graphical site that teaches students about Texas. Click "For Kids" for the main site. "Senate Jr." is available for younger students with limited reading skills.
3. [www.curriki.org](http://www.curriki.org) A wiki environment where content is created and edited by its members. It is a free source environment where collaborators work together on open source curricula.
4. [www.renzullilearning.org](http://www.renzullilearning.org) This is a site that must be subscribed to, but well worth it. There are links to numerous project opportunities and websites for students. It is student friendly and created by Joseph Renzulli.
5. <http://teacher.scholastic.com/fieldtrp/index.htm> Take a field trip or more...this site provides internet based field trips to certain sites based on subject area.
6. <http://projects.edtech.sandi.net/lewis/litf/> Webquest for Gr. 6-8 students where they "capture" another Native American and create a new identity for him/her so they fit into the Lenni Lenape culture in this extension of the novel "The Light in the Forest" by Conrad Richter.
7. <http://www.ackworth.w-yorks.sch.uk/africa/index.html>  
A journey of discovery, exploration, and mystery, through the wilds of Africa, in which you and your students participate via the expedition Internet site. Cross Africa in a fully Internet capable and satellite linked Land Rover to combine the thrill of an African expedition with expansive educational projects. Learn through discovery and exploration.
8. <http://www.ruthannzaroff.com/wonderland/>  
Enter Alice's world (Alice in Wonderland by Lewis Carroll) and find many different activities, like Alice's Guessing Game (hangman type), Help Distract the Puppy (a draw/color activity) - for all ages.
9. <http://www.nationalgeographic.com/features/97/bureau/>  
National Geographic site for kids. When you click into the travel bureau you will begin an adventure into the past, present or future. Have students use what they learn to create a brochure describing their adventure or create a travel itinerary based on a set budget with specific required activities.
10. <http://www.eduweb.com/amazon.html>  
Learn about the people and geography of the Ecuadorian Amazon. Try running a community-based ecotourism project.
11. <http://www.iwebquest.com/egypt/ancientegypt.htm>  
You must locate the burial mask of the Ancient Egyptian Pharaoh Tutankhamen - on the inside of the mask is written a message that if successfully decoded could solve our earth's environmental crisis; your quest is to decode that message and return to our time safely. Create a school/community eco-friendly project to help your community.
12. <http://www.miamisci.org/af/sln/>  
The Miami Museum of Science takes an imaginative approach to matter, energy and atomic properties. (for middle school)

13. <http://www.cagle.com/teacher/>  
The largest online collection of newspaper editorial cartoons can be found here. Contains current cartoons from 54 newspaper editorial cartoonists with lesson plans for using the editorial cartoons as a teaching tool in Social Sciences, Art, Journalism and English at all levels. Using a cartoon from this site, relate the past to the present. In your own words describe what the cartoonist feels about the related topic.
14. <http://42explore.com/>  
On each page you'll find definitions, activities, the 4 good starting points, and many more links and resources for thematic topics by subject level.
15. <http://www.escapefromknab.com/>  
This simulation integrates math, science and fiction while taking students to the planet Knab. By making the right financial decisions they can find their way back to Earth. The experience provides a different game each time.
16. <http://www.fbi.gov/kids/k5th/kidsk5th.htm>  
This FBI site is for grades K-5 and is set up in a Field trip format. Overview of fingerprinting, DNA, jobs at the FBI. Great intro activity to CSI units.  
<http://www.fbi.gov/kids/6th12th/6th12th.htm> This site (for 6th-12th grade students) follows various cases through a variety of scenarios. Special Agent Challenge requires answering factual questions about the FBI. Working dogs describes jobs dogs play in bomb sniffing, etc.
17. <http://projects.edtech.sandi.net/kroc/scimethod/>  
Using the scientific method, you can discover who stole the diamonds and find the lighthouse diamond thief.
18. <http://library.thinkquest.org/3288/fractals.html>  
Learn about fractals: what they are and how to design them. It will also let you discover more on your own; play a part in the interactive fractal creation center, designing and displaying fractals that you have invented.
19. <http://www.eduweb.com/insideart/>  
Participants get sucked into a Van Gogh painting and then must learn all about art in order to get out. Online simulation with tie-ins across the curriculum.
20. <http://www.alifetimeofcolor.com/play/leonardo/index.html>  
You must travel back in time to the Renaissance period and explore Leonardo da Vinci's workshop in search of clues to find out who changed history. (4<sup>th</sup> grade up)
21. [http://teacherweb.com/IN/ChelichAcademy\(Homeschool\)/MozartWebQuest/index.html](http://teacherweb.com/IN/ChelichAcademy(Homeschool)/MozartWebQuest/index.html)  
Climb aboard the time machine and travel through time to gather information about the famous composer, Wolfgang Amadeus Mozart.
22. <http://www.epals.com/>  
The Internet's largest global community of connected classrooms. Safely connect, collaborate and learn. Click the projects button for great ideas.
23. <http://www.globalschoolnet.org>  
Global School Net's mission is to support 21st century learning and improve academic performance through content driven collaboration by engaging teachers and K-12 students in meaningful project learning exchanges worldwide. Develop science, math, literacy and communication skills, foster teamwork and collaboration, encourage workforce preparedness and create multi-cultural understanding.

24. <http://media.learns.org/>  
The iEARN Collaboration Centre enables youth to learn with, rather than simply about, the world. Find project partners quickly. Read 200+ project descriptions and browse student-produced media. Click on the Projects area in the lower left corner of the home page for collaborative project ideas.
25. <http://www.ic-schools.net/tutorials/interactive.htm>  
Interactive Websites provide standards-based cross curricular web resources designed to enhance online learning opportunities. These sites interact with the user usually through either a text-based or graphical user interface.
26. <http://www.sdcoe.k12.ca.us/score/cyberguide.html>  
CyberGuides are supplementary, standards-based, web-delivered units of instruction centered on core works of literature for various grade levels. Each CyberGuide contains a student and teacher edition, standards, a task and a process by which it may be completed, teacher-selected web sites and a rubric.
27. <http://www.makebeliefscomix.com/>  
Create your own comic strips in English or Spanish. Have students create a storyboard prior to visiting the site, so that they practice the writing process. Use this site to retell or summarize a story, recap an event in history, teach someone how to solve a simple math problem. Be creative!
28. <http://bighugelabs.com/motivator.php>  
Create your own customized motivational posters. Armed with a digital camera and that non-stop wit of yours, you now have the power to turn a simple photograph into a humorous or inspirational message. Print it, frame it! Use this site with idioms, metaphors, similes and other forms of figurative language. Challenge your students to take digital pictures and turn them into figurative language works of art.
29. <http://www.readwritethink.org/materials/postcard/>  
Verizon Thinkfinity's Read, Write, Think offers this easy writing tool to allow students to create online postcards and print. This same type of activity can be created using PowerPoint and importing digital pictures taken by students.
30. <http://www.dabbleboard.com/>  
Dabbleboard is an online collaboration application that is centered around the whiteboard. With a new type of drawing interface that's actually easy and fun to use, Dabbleboard gets out of your way and just lets you draw. Sign up for the free account and let students collaborate online to create graphic organizers on provided topics or work independently to plan their own project.
31. <http://www.rmcdenver.com/useguide/bank/26.htm>  
Students utilize career resources to develop a career information database that includes international career opportunities.

## Project Based Ideas

1. Students will conduct research on Edgar Allan Poe and read one of his works. Using their researched information, students will work in editorial teams to create a program and a playbill (Microsoft Word, Publisher or other software application) that celebrates Edgar Allan Poe's life and work. (for 8<sup>th</sup>-12<sup>th</sup> grade)

2. Students love to fly paper airplanes, so integrate math, science and history into a fun flying experience. Cover the four forces of flight: lift, drag, thrust, and weight (gravity) and have students chart the results of their efforts using Excel. Students create and design their own planes and flight variables. Have students explore how flight has changed over time. How were the changes impacted due to the political climate of the time? Students can create a PowerPoint presentation of all results and include digital pictures or videos of their test flights.
3. Figurative language is fun for students, but idioms can be challenging. Have students create mini books about idioms. Include the definition of "idiom," three real idioms, one student created idiom with meanings and images representing the idiom itself. Students can use PowerPoint to create their slides and print using the handout mode. (See included lesson plan for more details.)
4. Students create book trailers to intrigue others about reading a specific book. Students can use video or digital images to represent a portion of the story and then turn it into a movie using Photo Story 3, Windows Movie Maker, iMovie or other related program. Students not only create storyboards, they write the scripts, create and produce the book trailers.
5. Students create a mini book and PowerPoint presentation demonstrating a cycle. For example, the life cycle of a butterfly. Students can use real digital images or copyright free images to create their cycle. In the PowerPoint format, students can record themselves explaining the process and can then print it as a mini book to share. (See included lesson plan for more details.)
6. Students can research a current event and write their own newspaper article about their findings. This can be written on the computer using a word processing program, a newsletter format or presented as if they were a news reporter using video or still images.
7. Students create online scavenger hunts to assist others in learning about a specific topic. Have students log in to Discovery Education ([www.discoveryeducation.com](http://www.discoveryeducation.com)) with their student accounts and create scavenger hunts for classroom use or use [http://teachers.teach-nology.com/web\\_tools/web\\_quest/](http://teachers.teach-nology.com/web_tools/web_quest/) to fill in the blanks and create their own webquest adventure.
8. Students create All About Me pages while impersonating a person from history, an author or poet, musician, state or animal. They use <http://edu.glogster.com/> to create their poster like page. Include videos, still images and information to add to their glogster page. These can be shared with the class. Glogster accounts are free and are teacher created accounts. If account is created prior to Feb. 28, 2010, the teacher will receive 200 free student accounts. After that date, educators will receive 100 free student accounts.
9. Students use self-created video clips or digital images as part of a multimedia presentation that demonstrates their mastery of a concept learned in class. For example, pictures are taken of a student solving a math problem (step by step) and imported into Photo Story 3. The student narrates an explanation of how to solve the problem as the step by step images change. Another example, students use the same method while explaining the steps of a process or cycle (scientific method, water cycle, etc.) or re-enact an important event in history.
10. Students use digital images to create vocabulary review for various subjects. If created and turned into video format, these digital vocabulary reviews may be linked to a teacher website for easy access to review.

11. Literary discussions can become relevant review tools for all when turned into Podcasts, videos, etc. for all students to review. If you have access to Discovery Education, use their Great Books series to reinforce parts of the book and inspire literary discussions.
12. Establish a “lunch and learn” club where students can explore a topic of their choosing while eating lunch. Allow them to determine their learning path and final project based on their learning interests and learning style. Create videos, interactive games, etc.
13. Establish “Great Debate” opportunities where students research a specific topic and prepare their points to be debated in front of a panel of judges (students and real world relevant). Invite community members in to join the debate teams and provide real world information. Student teams create PowerPoints covering their debate topics or join the experts via video conferencing.
14. Have students create digital timelines representing their lives, a time in history, a cycle or process, problem solving steps, etc. Suggested sites for timelines are <http://www.timetoast.com/> , Timelines of History <http://timelines.ws/> , Internet 4 Classrooms pre-created timelines <http://www.internet4classrooms.com/timelines.htm> , Interactive Timeline creator by Read, Write, Think <http://www.readwritethink.org/materials/timeline/>, Horizontal or Vertical timeline creator [http://www.teach-nology.com/web\\_tools/materials/timelines/](http://www.teach-nology.com/web_tools/materials/timelines/)
15. Allow students (2 max.) to work collaboratively on a story at [www.storybird.com](http://www.storybird.com) then email it or embed on a teacher website.
16. Work in teams (2-4 students) and use problem solving skills to build a bridge that meets these specifications: Bridge should measure no more than 30 inches and must hold a weight capacity of 10 lbs. (You can use two 5 lb. bags of sugar to bridge’s strength), Bridge must withstand the force of Mother Nature. (You can use a low speed fan blowing on the bridge to test.) and the bridge must be labeled indicating the type of bridge created. To build the bridge, the following materials may be used: Wooden toothpicks, Wooden Popsicle sticks, Glue, your choice of one other material. Use a flat piece of cardboard, wood or board as the support for your bridge. Use the digital camera or video camera to document the build process and the test results.
17. Work in groups to recreate a newspaper from a particular time in history. Here are some questions to think about as you start to create your newspaper: What historical event will your newspaper cover? What types of articles will your newspaper have? What is in a newspaper besides the articles? How can you use special language and advertisements to make your newspaper authentic? Did people have different attitudes and beliefs during the period you are portraying in your newspaper? If so, how will you make this clear? (See included lesson plan for more details.)
18. To learn more about the judicial process, set up a mock Supreme Court in your classroom for students to research and present their cases. Have student selected to be the justices and those that represent each side of the case. Each side will use PowerPoint to create their case to present. (See included lesson plan for more details).

I hope that this compilation of project ideas assists you in your efforts with students. If you have any questions, please let me know.

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