

# A K12 Educator's Guide to Open Source Software

## WHERE TO GO FROM HERE

Now that your students have learned the basics about bitmap and vector computer graphics, why not offer them the opportunity to create their own as part of your curriculum?



There are two free & open source tools, GIMP and Inkscape (more details about these are below & right) that educators download, install, and use in their K12 classrooms today.

For example, Red Hat recently sponsored an 8-session technology class at Blanchard Middle School, a Boston-area school. The students created rock band logo graphics in Inkscape, learning about vector computer graphics along the way. A local-area print shop, EmbroidMe Chelmsford, donated professionally-printed T-shirts of the students' designs.

Why not try a similar project in your school? Free-to-use printable lesson plans, activities, and the instructor's day-by-day classroom journal are available at:

<http://mairin.wordpress.com/category/inkscape-class/>

## TEACHERS SPEAK OUT ON OPEN SOURCE

"I had these great ideas for these great projects to do with the kids... but there is no way we could afford to bring Photoshop in..."

"When kids have a computer and they can't afford Microsoft Office, I can hand them an OpenOffice.org CD. Here's all the software you need and it's free... A lot of the students are now using OpenOffice.org at home as well as in school."

- Anthony Baldwin, K-12 educator

"Our support costs are the same. We even save a little money with open source because we're not paying for support contracts; we're using the community resources that we have... if we can get better software for free, it would be very irresponsible for us not to do that."

- Ben Mabbott, K-12 educator

"...slowly but surely we've been replacing all proprietary stuff because the open source stuff just simply works better."

- Eric Harrison, K-12 educator

Quotes gathered in 2004-2005 in the Open Options survey run by the federally-funded Northwest Regional Educational Laboratory. For more information, visit <http://www.netc.org/openoptions>.

## FREE & OPEN SOURCE GRAPHICS APPLICATIONS

### Inkscape

Vector graphics creation software.



- Download at [www.inkscape.org](http://www.inkscape.org)
- Works on Windows(TM) and Apple's OS X(TM), as well as on Linux (including Fedora.)

### GIMP

Bitmap graphics creation software.



- Download at [www.gimp.org](http://www.gimp.org)
- Works on Windows(TM) and Apple's OS X(TM), as well as on Linux (including Fedora.)

This resource sponsored by:  **redhat.**

# Resources

## GENERAL/COMMUNITY

### OPENSOURCE.COM EDUCATION CHANNEL

[www.opensource.com/education](http://www.opensource.com/education)

A forum for discussing how the open source way can be put into practice to improve the world of education: for teachers, children, parents, professors, administrators, and anyone who wants to learn or teach.

### K12 OPEN SOURCE WIKI

[wiki.k12opensource.com](http://wiki.k12opensource.com)

A wiki with a lot of great information on open source in K12 classrooms, including a blog, application directory, lesson plans, and case studies.

### STEVE HARGADON'S BLOG

[www.stevehargadon.com](http://www.stevehargadon.com)

Prominent K-12 education and open source technology blogger.

### NORTHWEST EDUCATIONAL TECHNOLOGY CONSORTIUM OPEN OPTIONS

[www.netc.org/openoptions](http://www.netc.org/openoptions)

An excellent site with tons of information about using open source software in the K12 classroom with examples and the results of a survey of K12 educators using open source, federally-funded and put together by the Northwest Educational Technology Consortium.

## LEARNING MATERIALS

### FLOSS MANUALS

[en.flossmanuals.net](http://en.flossmanuals.net)

High-quality, free manuals for free & open source applications, many of which are useful in the classroom

### OPEN EDUCATIONAL RESOURCES

[oercommons.org](http://oercommons.org)

Open Educational Resources are teaching and learning materials that you may freely use and reuse, without charge. OER often have a Creative Commons or GNU license that state specifically how the material may be used, reused, adapted, and shared.

### OPEN CLIP ART

[www.openclipart.org](http://www.openclipart.org)

Catalog of public domain vector artwork, convenient for classroom usage.

## CONNECT WITH OTHER OPEN SOURCE EDUCATORS

### K12 OPEN SOURCE COMMUNITY

[community.k12opensource.com](http://community.k12opensource.com)

An active social network & forum for K12 educators to discuss open source.

### CLASSROOM 2.0

[www.classroom20.com](http://www.classroom20.com)

Open-source-friendly and technology-centric educators' community.

## SPECIFIC APPLICATIONS OF INTEREST

### ETOYS

[squeakland.immuexa.com](http://squeakland.immuexa.com)

A rich authoring environment for kids with 2D and 3D graphics, images, text, particles, videos, and sounds. Developed as part of One Laptop Per Child.

### SCRATCH

[scratch.mit.edu](http://scratch.mit.edu)

Open source application that enables kids to create interactive stories, games, music, and art.

## FINDING OPEN SOURCE APPLICATIONS

### OS ALT

[www.osalt.com](http://www.osalt.com)

Wondering if there's a free & open source alternative to an application you use in the classroom? Look it up on OSalt.com!

### K12 OPEN SOURCE HELP'S OPEN SOURCE APPLICATIONS

[orwinconsulting.com/k12osh/apps](http://orwinconsulting.com/k12osh/apps)

Catalog of open source applications for K12 usage. Applications are listed by operating system (Windows / Mac / Linux.)

### K12OPENSOURCE.ORG APPLICATION CATALOG

[www.k12opensource.org/software.html](http://www.k12opensource.org/software.html)

Another catalog of open source applications for K12 usage.

### KDE EDU

[edu.kde.org](http://edu.kde.org)

Open source suite of K12 Applications produced by the KDE project.