

Explore free, open-source sites for Coding, 3D Modeling, Digital Art, and more!

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Did you know you can access thousands of free Udemy courses on Coding, 3D & Animation, Graphic Design, Business, Marketing, IT, and more with your Phoenix Public Library card? Explore coding classes like JavaScript, Python, and HTML, and 3D classes for Blender and Tinkercad.

## Coding

**Code.org** - [code.org](http://code.org)

"an education innovation nonprofit that provides the leading curriculum for K-12 computer science in the largest school districts in the U.S."

**CS First** - [csfirst.withgoogle.com](http://csfirst.withgoogle.com)

"a free computer science curriculum that makes coding easy to teach and fun to learn while leveling the computer science playing field." (Grades K-12)

**Code/Art** - [code-art.com](http://code-art.com)

Code/Art offers tutorials for creative coding, including portraits in Javascript with P5.js, animated art, game design, and more.

**Girls Who Code** - [Girlswhocode.com/programs/code-at-home](http://Girlswhocode.com/programs/code-at-home)

"Free computer science activities for students, educators and parents", Girls Who Code activities each feature "a woman in tech who pioneered innovative technology."

**Kodable** - [kodable.com](http://kodable.com)

"Kids learn core fundamentals of computer science through engaging games developed with real teachers and kids." (Grades K-4)

**Scratch** - [scratch.mit.edu](http://scratch.mit.edu)

As used in MACH1's "Big Bytes: Scratch", "Scratch is a free programming language and online community where children can program and share interactive media such as stories, games, and animation." (Grades 5-12)

**P5.js** - [p5js.org](http://p5js.org)

As used in MACH1's "Art Coders," "p5.js is a JavaScript library for creative coding, with a focus on making coding accessible and inclusive for artists, designers, educators, beginners, and anyone else!"

**Earsketch** - [earsketch.gatech.edu](http://earsketch.gatech.edu)

As used in MACH1's "Music Coders", "EarSketch helps you learn computer science, music, and music technology in a fun, engaging environment using Python or JavaScript."

## 3D Modeling

**Tinkercad** - [tinkercad.com](http://tinkercad.com)

"Tinkercad is a free web app for 3D design, electronics, and coding, trusted by over 50 million people around the world."

**Sculptris** - [Sculpteo.com](http://Sculpteo.com)

"Sculptris is a free 3D modeling software, which exploits the modeling clay concept. It is unique in that anyone can pick it up and try it out without any technical knowledge."

**Blender** - [blender.org](http://blender.org)

"Blender is the free and open source 3D creation suite. It supports the entirety of the 3D pipeline—modeling, rigging, animation, simulation, rendering, compositing and motion tracking, even video editing and game creation."

**SculptGL** - [Stephaneginier.com/sculptgl](http://Stephaneginier.com/sculptgl)

"SculptGL is a digital sculpting tool that combines 3D/2.5D modeling, texturing and painting."

**Womp** - [Womp.com](http://Womp.com)

"Womp is a new & revolutionary 3D creation engine that makes anyone into a 3D creator." Womp is browser-based digital sculpting tool that allows users to create 3D models with cool texture and color combinations."

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## Digital Art

### Pixel Based/8-bit Drawing

#### **GIMP** - [gimp.org](https://www.gimp.org)

"GIMP (GNU Image Manipulation Program) is a freely distributed program for such tasks as photo retouching, image composition and image authoring."

#### **Photopea** - [photopea.com](https://www.photopea.com)

"Photopea is a free web-based photo and graphics editor used for image editing, making illustrations, web design or converting between different image formats including PSD."

#### **Fire Alpaca** - [firealpaca.com](https://www.firealpaca.com)

"Fire Alpaca is a free Digital Painting Software known for fast running speed and support for low-spec computers."

#### **Krita** - [krita.org](https://krita.org)

"Krita is a great tool for beginners who want to experiment with illustrations, concept art, matte painting, textures, comics and animations."

#### **Pixilart** - [pixilart.com](https://www.pixilart.com)

"Pixilart is a safe website program and community for art enthusiasts of all ages. Users can easily create art for games, entertainment, and education."

#### **Piskel** - [piskelapp.com](https://www.piskelapp.com)

"Piskel is a free online editor for animated sprites & pixel art."

#### **GraphicsGale** - [graphicsgale.com](https://www.graphicsgale.com)

"GraphicsGale is a free site focused on sprite creation, pixel art, and an easy to use animation graphic editor."

### Vector Based Art

#### **Inkscape** - [inkscape.org](https://www.inkscape.org)

"a free and open-source vector graphics editor used to create vector images, primarily in Scalable Vector Graphics format."

#### **Vectr** - [vectr.com](https://www.vectr.com)

"a simple yet powerful free graphics editor that lets amateurs design/edit vector graphics like a pro."

## Graphic Design and Marketing

#### **Canva** - <https://www.canva.com/designschool/>

Learn how to create graphic designs like flyers, logos, social media designs, infographics and more with Canva!

## Storytelling

#### **Twine** - [twinery.org/2](https://www.twinery.org/2)

As used in MACH1's "Story Coders", "Twine 2 is an open-source tool for telling interactive, nonlinear stories."

#### **AXMA Story Maker** - [online.axma.info](https://www.online.axma.info)

"the platform for creating visual novels and interactive stories."

#### **Text Adventures** - [textadventures.co.uk](https://www.textadventures.co.uk)

"Create, play and share text adventure games."

#### **Adrift** - [adrift.co](https://www.adrift.co)

"Create your own Interactive Fiction with this free, easy to use application for Windows."

## Animation

#### **Scratch** - [scratch.mit.edu](https://www.scratch.mit.edu)

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#### **Open Toonz** - [opentoonz.github.io](https://www.opentoonz.github.io)

"Free open-source software for the production of 2D animation."

#### **Pencil 2D** - [pencil2d.org](https://www.pencil2d.org)

"An easy, intuitive tool to make 2D hand-drawn animations."

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