Constructive, Creative, Playful Computing Options for Children & Families A Quick Guide by Gary S. Stager, Ph.D. ©2024



Software Recommendations

- Turtle Art (Mac, PC, iPad) <u>constructingmodernknowledge.com/turtleart/</u> Simple, powerful, creative, environment for learners of all ages to develop mathematical, computing, and design skills. Use simple or complex mathematical instructions to teach the turtle to draw beautiful images. Turtle Art is an elegant and intuitive block-based dialect of the Logo programming language.
- The Logical Journey of the Zoombinis (iPad, Mac, Windows) <u>zoombinis.com</u> An amazingly fun, easy to get started, yet complex animated puzzle game with no instructions for the iPad, Mac, or PC. Imagine chess with cute animated Zoombinis. This was a favorite of my children for many years and it still captures the imaginations and mathematical thinking of kids today.
- Lynx (Mac & PC) <u>lynxcoding.club</u> A browser-based version of the Logo programming language designed for children. Animation, mathematics, problem solving, and multimedia storytelling are all possible in this text-based programming environment.
- Microsoft MakeCode (Mac & PC) <u>makecode.com</u>
 Program the BBC micro:bit, an inexpensive "brain board" in a stable block-based programming environment on the Web or design fantastic videogames on play on your computer, Raspberry Pi console, or handheld device.
- Snap! (Mac & PC) <u>snap.berkeley.edu</u>
 A block-based superset of Scratch being used to teach computer science from primary through university level.
- Scratch (Mac & PC) <u>scratch.mit.edu</u> Enormously popular web-based, block-based programming environment used by dozens of children online to create games and interactive projects. Sharing is in the DNA of Scratch.
- Octostudio (Android/iOS phones & tablets) <u>octostudio.org</u> The same team at MIT who designed Scratch created a new safe, developmentally appropriate programming environment allowing kids to build shareable "apps" for your iOS or Android phone.

Schools, parents, or community groups interested in exploring positive ways to engage children in a technologically complex and sophisticated world or hosting a creative family computing night, may contact Dr. Stager at gary@stager.org.

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