



## What is Sugar?

Sugar...

...is a learning platform designed for children.

...was originally designed for the XO-1 laptop of the OLPC project.

...runs on most netbooks and PCs.

...is used almost two-million students in Peru, Uruguay, Rwanda, Nepal, the United States, and more than 40 other countries.

...is Free Software.

...is available in more than 25 languages.

The Sugar learning platform promotes collaborative learning through rich-media expression, part of an effort to provide an opportunity for a quality education to every child. Sugar provides the means to help people lead fulfilling lives through access to a quality education that is currently missed by so many.

Sugar is a graphical user interface and a collection of software applications—activities—that gives children a rich environment for learning. It has three

attributes that make it different and special: simplicity, collaboration, and reflection.

The Sugar user interface is very simple. It has a “low floor” so that even children as young as 2- and 3-years old can start to use it. At the same time, it puts no limit to what they can achieve: children can use Sugar to reach to very complex ideas. They are not bound by its simplicity; rather they use its simplicity as a catalyst for growth. Sugar presents no “ceiling” to the learner.

Sugar has built-in mechanisms for collaboration that make it very easy for children and teachers to work together on projects, to share ideas, and to engage in critical dialogs. With Sugar, learners balance the exploration of knowledge with expression with their own ideas.

Sugar maintains a journal—a diary—of everything a child does; it is a record of both what learners make and how they made them. A child, parent, or teacher can monitor progress as a means of assessment.

Sugar is not about instruction; it is about learning.

## **What is Sugar Labs?**

Sugar Labs is a volunteer-driven, nonprofit organization, a member project of the Software Freedom Conservancy. Sugar Labs coordinates volunteers—international community of teachers, software developers, artists and writers, parents and children—who are passionate about providing educational opportunities to children through the Sugar Learning Platform. Globally, there are teachers that discuss how they use Sugar in their classrooms; students who blog about their Sugar learning experiences; and everyone, not just software engineers, contribute to the code base. At Sugar Labs, we promote investing locally in learning that works for every child.

## **What distinguishes Sugar and the educational initiatives of Sugar Labs from other projects?**

While there are many great ICT-oriented learning projects, what distinguishes Sugar is its platform features. Like a sponge, Sugar pulls in projects such as Gcompris, Etoys, Scratch, and Open Office for Children, as well as hundreds of learning activities specifically written for Sugar, making those great tools available to more children. But the Sugar platform further enhances the learning experience through its mechanisms of collaboration and reflection. With Sugar, the computer represents more than an opportunity for interaction with isolated applications; it is the manifestation of a change in the culture of learning.

Sugar will engage even the youngest learner in the use of computation as a powerful “thing to think with.” They will quickly become proficient in using the computer as a tool to engage in authentic problem-solving. Sugar users develop skills that help them in all aspects of life.

# sugar on a stick



## What is “Sugar on a Stick”?

Sugar on a Stick is a LiveUSB image of the Sugar learning platform. (A live USB is a USB flash drive containing a full operating system that can be booted. User data is preserved on the flash drive between sessions.) Each student is provided with a bootable Sugar USB device, ensuring access to Sugar on the computers in their homes, school and after-school environments, and community.

Instead of purchasing a laptop, students will be given Sugar on a Stick. Students will work with Sugar whenever and wherever they have access to computers. Sugar on a Stick turns any computer into each child's own personal computer, yet with a continuity of software, collaborative connections to their classmates, and work in progress.

## The Sugar advantage

- Superior pedagogical framework
- Unique collaboration and journaling (evaluation) features
- Large and successful installed base with 100s of activities
- Large and committed community base (both developers and teachers)
- 24/7 support; training and workshop materials available
- Rapidly expanding of teacher-driven development
- Easily localizable and customizable
- No licensing fees
- A global project: no single point of dependency or failure
- Great potential for local job creation

## *Sugar features*

- Sugar facilitates sharing and collaboration: children write, share books, or make music together with one mouse-click.
- There are no files, folders, or applications.
- Everything is saved automatically: our goal is to make it almost impossible to lose any data.
- A journal/portfolio records everything you do: it is a place to reflect upon and evaluate your work.
- Sugar is available on all major GNU/Linux distributions and runs on most computer hardware.
- Sugar is Free Software: it is written in Python and easily customized.
- Documented by its users: it is easy to use and teachers have created a wealth of pedagogical materials for it.

## *Sugar benefits*

- Hundreds of tools for discovery through exploring, expressing, and sharing: browsing, writing, programming, etc.
- Built-in collaboration system: peer-to-peer learning; always-on support; and single-click sharing.
- Built-in tools for reflection; a built-in portfolio assessment tool that serves as a forum for discussion between children, parents, and teachers.
- A discoverable learning platform: it uses simple means to reach to complex ends.
- Designed for local appropriation: it has built-in tools for making changes and improvements and a growing global community of support.
- An emphasis on learning through doing and debugging: more engaged learners are to tackle authentic problems.
- Available in a wide variety of forms: as part of GNU/Linux distributions; LiveCD, LiveUSB; and in virtual-machine images.



## The Sugar on a Stick advantages

- Reduces costs with flexible hardware choices by allowing institutions to continue using their existing investment in hardware while reducing support costs and user frustration.
- Enables low-cost options when purchasing new computers.
- Makes it easy to accept donated older machines (e.g., computers being discarded by industry); it increases the life of older computers, reducing disposal costs and enabling the reuse of existing resources.
- Provides a coherent and consistent computing experience even during times of fluctuating technology funding and changes in hardware choices.
- Allows communities to take advantage of the increasing household computer ownership, while still providing a consistent, comparable computing environment.
- “Portfolio on a stick” gives learners “pride of ownership” to have access to the projects and creations and explorations they have previously done regardless of where they did them.



- Provides off-line access to applications and content: not every learner has access to broadband or the Internet at home.
- Enables classroom teachers the autonomy of using the Sugar learning platform regardless of the configuration of the school computer systems (classroom teachers are not allowed to install software; they are completely beholden to their school system's IT department).

For more information, visit our website at <http://sugarlabs.org> or send email to [walter@sugarlabs.org](mailto:walter@sugarlabs.org). You can download Sugar on a Stick from <http://wiki.sugarlabs.org/go/Downloads>.