



The ICT4me Curriculum

About ICT4me

ICT4me is an after school and summer curriculum for middle school youth to develop ICT fluency, interest in mathematics, and knowledge of information, communication, and technology (ICT) careers. This problem-based curriculum capitalizes on youth interest in design and communication technologies. ICT4me provides structured interactions with ICT professionals, including having youth participate in engineering design and development teams. ICT4me's promotes a train-the-trainer approach to building capacity in informal ICT learning.

Build IT vs. ICT4me

ICT4me is a derivative of the Build IT curriculum co-developed between SRI International and Girls Inc. of Alameda County. Questions about the Girls Inc. implementation of Build IT can be directed to them at <http://www.girlsinc-alameda.org/about/contact>.

SRI is no longer supporting the development of ICT4me, so the curriculum materials are offered as is.

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Electronic Versions of Materials

Electronic versions of all materials in this unit are available for download from the website at <http://ict4me.sri.com/>.

Contact Information

Please contact the SRI International Inquiry line for questions about ICT4me.
<https://www.sri.com/contact/form>

ICT4me

Unit 3 Scope and Sequence

Re-Designing the Web

Big Ideas

- A design has both form (how it is designed, what it looks like) and function (what it is designed to do). The functionality can be visible (e.g., web page navigation) or hidden (e.g., HTML code) to the user.
- Engineering conventions (i.e., shared standards) create opportunities and constraints for design.
- ICT professionals work with colleagues and users to solve problems.
- There are a variety of ICT careers. Some of these careers involve computer programming.
- Structured approaches and models in mathematics address complicated counting problems that are found in the development of Web applications (i.e., algorithmic thinking).

Essential Questions

- What are the differences between how a user interacts with the web and how an engineer interacts with the Web? Hint: You’ve engineered your web pages.
- How does HTML enable and limit your designed Web page?

Mapping the Big Ideas

Session/ Core Activity	Description	IT	Algorithmic	Performance	Form	Engineering	IT	IT has
		Professional	Thinking	Task	and Function	Conven- tions	Professionals Work With Others	a variety of careers
Week 1: Intro & Sketching	Youth use the design process, learn about website design, and begin planning their Web sites with the website requirements as a guide.				X	X		
Week 2: Field Trip	Youth visit IT professionals at their work site and learn about IT careers.	HCI/ Interaction Designers					X	X
Week 3: Intro to HTML	Youth learn HTML tags while working on their websites. Youth incorporate ideas they learned from professional designers.				X	X		
Week 4: Field Trip	Youth visit IT professionals at their work site and learn about IT careers.	Business Websites Variety of Careers					X	X

Session/ Core Activity	Description	IT Professional	Algorithmic Thinking	Perfor- mance Task	Form and Function	Engineering Conven- tions	IT Professionals Work With Others	IT has a variety of careers
Week 5: Hyper- links & Images	Youth learn how to incorporate hyperlinks and images, including learning how to size images.		X		X	X		
Week 6: Color Your Web World	Youth learn to use color tags, and experience activities connecting IT to the math of combinatorics.		X		X	X		
Week 7: Field Trip	Youth visit IT professionals at their work site and learn about IT careers.	Business Websites Variety of Careers					X	X
Week 8: Finding the WYSIWYG	Youth use their knowledge of HTML to draw that out what a web page will look like based on the HTML that they see.		X	Full	X	X		
Week 9: Field Trip	Youth visit IT professionals at their work site and learn about IT careers.	Communi- cation Oriented Websites & Tools					X	X
Week 10: Celebration of Published Websites	Youth make their websites live, activate the chat feature, give each other feedback as "users", then make changes to their pages in preparation for a Celebration to share their work.			Full	X	X		