Offer Computing Workshops and Camps

They Benefit Both Students and the Teachers Who Offer Them

Enrich K-8 Education and Better Prepare Students for the Future

Computing is important. Computing skills and computational thinking are increasingly important 21st-century skills. Most kids are competent computer users, but few can write programs or do computational thinking. These skills are vital for helping students become effective citizens and for preparing them to have influential, rewarding, and flexible careers in a field predicted to have more opportunity than almost any other.

Teachers can help. Teachers have few opportunities during the school year to teach these skills and most students — especially girls — are missing out. Teachers can help by offering a computing module in existing workshops or summer camps, or even by offering their own summer programs that reach out and engage girls.

Try Out Interesting Ways to Teach Computing

Teachers can:

- Advance their own computing knowledge and professional capabilities
- Have fun
- Try out interesting and creative ways to teach computing — without having to worry about grading
- Translate the experience to the classroom for more engaging lessons

Workshops and day camps can be cost-effective for teachers as well as affordable for students.

Engage Girls in Computing

Currently, girls and women are seriously underrepresented in computing professions. For example, in 2008, girls were only 13 percent of the high school seniors who intended to major in computing in college.

Workshops and camps can improve girls' computing skills and confidence, and may increase their interest in computing education and careers.

Interest, confidence, and skills are essential for ensuring that girls participate fully in creating tomorrow's technology.

ncwit.org
National Center for Women & Information Technology (NCWIT)
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Revolutionizing the face of technology.℠

Partner with Established Programs

Many youth-serving organizations already have brand recognition, computer labs, advertising, recruitment, and registration. Find out what is available in your area by contacting your local:

- YWCA
- County recreation departments
- Schools, universities, or colleges
- 4-H groups
- Religious organizations

Other organizations may have local offerings as well:

- Technology groups such as the Sally Ride Science camps at sallyridecamps.com
- Girl Scouts of the USA at girlscouts.org, click on Find a Council to locate the office nearest you
- Girls Inc. at girlsinc.org

Use or Adapt Established Curriculum

Computing content that appeals to girls has been developed by a variety of organizations and professionals. You can adopt or adapt this curriculum for a quick start on topics, examples, and lesson plans. Comprehensive computer camp curriculum is available at ncwit.org/summercamps. Examples of available content include:

- Computer Science Unplugged (csunplugged.org) is a free resource that offers engaging physical activities for conveying computing concepts without a computer.
- Scratch (scratch.mit.edu) is free software that lets kids create 2D animations and games using drag-and-drop programming.
- Alice (alice.org) is free software that students can use to create 3D movies and games.
- Python (python.org) is free open source software that works well as a first language.

Get More Information

Resources and more information are available at ncwit.org/summercamps.

The NCWIT website links to:

- Free software such as Alice and Scratch
- Contact information for experienced mentors
- Lists of potential partners and how to attract them
- Testimonials
- Sample lesson plans
- Business plan models
- Program evaluation instruments
- Logistics planning
- Professional societies with ideas and advice about computing content

"WHY SHOULD YOUNG WOMEN CONSIDER A CAREER IN INFORMATION TECHNOLOGY?"

This NCWIT produced resource and its accompanying website provide content that is important to build into the camp/workshop curriculum:

- Share information about what a career in IT is and how a student can begin preparing.
- Provide examples of females in computer science, either through role models in the camp (teachers/assistants) or videos.
- Let participants know of the professional computing organizations and the resources these organizations provide related to computing degrees and careers.

Find out more at www.ncwit.org/talkingpoints.

ncwit.org

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Visit ncwit.org/summercamps for more information.

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