The Michigan Council of Women in Technology Foundation is a non-profit 501c3 organization dedicated to inspiring and assisting girls and women in Michigan to pursue technology education and careers. We do this by providing educational programs and scholarships, as well as ongoing support as they move through the educational system.

Our vision is to be recognized as a premiere organization for education, scholarships and support for girls and women in Michigan, inspiring them to study and pursue successful careers in technology and technology management.

	Problem	Suggestions	High School	Middle School	K-5
1	Computer Science careers are perceived as: long hours, solitary work, sitting at a screen all day, nerdy, uninteresting	Integrate high school girl's experiences with Computer Science to share what it is really like. Provide access for Middle School students to interact with Computer Science programs and business women.		**X**	
		Integrate college student's experiences with Computer Science to share what it is really like.	**X**		
		Introduce social technical activities and games for students to experience and interact with Computer Science programs and business women.	**X**	**X**	**X**
2	Stereotyping channels girls into "traditional" careers, while Computer Science is stereotyped as a male career	Reassure girls they can still be "girly" and cool and learn about computers. They do not have to change to become part of technical careers.		X	
		Encourage girls to go out and play, get dirty, solve their own problems, go to computer camp, trust their own judgment, face fears, embrace curiosity, and take risks. These suggestions support the development of exploration, problem solving and communication skills which are important to many technical careers.	**X**	**X**	**X**
		When elective courses are available encourage girls to take nontraditional courses like programming or woodwork instead of word processing or home economics. Seek alternatives for girls to participate in a variety learning programs.	**X**	**X**	
		Give girls toys that are physically and mentally challenging.			**X**
3	Benefits of Information Technology/Computer Science careers not explained to girls	Be sure to include Information Technology in career fairs, presentations, or outreach activities	**X**	**X**	
		Family, teachers, advisors, etc. also need to be aware of benefits of Information Technology careers for women. Participate in career fairs and attend business organization meetings to learn about the career opportunities for girls.	**X**	**X**	
		Give students information on Information Technology career benefits (salary, promotion, etc) accompanied by observations in the real world or talking with people in these careers. Invite business leaders to meet with students and share their personal and business experiences on how they achieved business and personal success.	**X**	**X**	
		Ensure that guidance counselors are not prejudiced when giving career advice. Reach out to business leaders and organizations to learn more about opportunities for girls in Information Technology and Computer Science.	**X**		

	Problem	Suggestions	High School	Middle School	K-5
4	Math or science anxiety transferred to Computer Science	Integrate technology into other subjects. This subject can part of exploration, science, business, etc. Apply the subject to solving problems, what can the students discover and invent that meets consumer needs, helps a business work smarter, etc.	X	X	
		Tailor projects to suit girls' interests.	X	X	
		Take Computer Science out of the math department. This subject can part of exploration, science, business, etc. Apply the subject to solving problems, what can the students discover and invent that meets consumer needs, helps a business work smarter, etc.	X	X	
5	Boys inadvertently given advantages from early on	Ensure equal access to computer labs and home computer	X	X	X
		Learning about technology outside of school (as boys often do) will help to lessen girls' anxiety	X	X	X
		Challenge and interact with girls in computer class; don't allow them to acquire "learned helplessness"	X	X	X
6	Sexism and bias repels or discourages girls, and is often subtle or unintentional	Select software that is free of gender bias (school and home)	X	X	X
		Teachers should push girls just as hard as boys and expect them to do as well in Science Technology Engineering Math (STEM) classes	X	X	X
		Teachers need to immediately deal with any sexist activities or comments from boys in computer class	X	X	X
7	Girls in Computer Science classes (or departments) feel isolated and visible, especially when boys comment or joke	Maximize number of girls in a particular computer class, instead of them being distributed across multiple classes, or optimally have an all-girl class if possible	X	X	
		Teachers need to learn to prevent, avoid, and remedy situations that cause females to feel exceptionally (negatively) visible or isolated, such as teasing or sexist comments from boys	X	X	
		Support groups or forums for girls in Computer Science. Provide a cooperative, collaborative, interactive learning environment.	X		
8	Girls often assigned less important or challenging assignments, sometimes when working in groups	Regular group evaluations and conflict resolution for collaborative environments so girls don't get less important jobs	X		

	Problem	Suggestions	High School	Middle School	K-5
9	Poor STEM teaching leaves students unprepared when entering college for Computer Science, or they never consider Information Technology careers in the first place	Enact better state standards for STEM requirements	X	X	X
		Educate girls to design and understand, not just use computers and software	X	X	X
		Teacher preparation, development, and retraining are all important, especially for technology. Training should be easily available and teachers could be offered incentives to become more qualified and experienced in Information Technology	X	X	X
		Seek more university involvement in nearby K-12 schools (visits from STEM faculty members, senior students, recent grads; a newsletter about involvement opportunities; web page attractive to High School girls with updated info about STEM, etc)	X		
10	Girls don't think technology is useful or relevant	Hands-on activities are key; they engage students and show them implications for learning Computer Science	X	X	X
		Find software such as "Animal Watch," in which the problems involve calculations about saving endangered species	X	X	X
		Computer clubs aimed at girls, with learning based on references to music, celebrities, teen magazines, etc.		X	
		Distribute a teen-style magazine, journal or articles about STEM		X	
		Computer Science classes should include information on ethics and the role of computers in communication industry and "other areas of social changes"	X		
		Also should include significant contributions of women in Information Technology	X		
11	Girls lack confidence, especially in STEM areas	Introduce role models from STEM fields	X	X	X
		Encourage girls to learn, experience, and take risks	X	X	X
		Single-sex activities: no teasing or resource hogging by boys, plus girls must take on leadership roles boys would usually take otherwise; could be all-girl class, workshop, seminar, lunch, etc.	X	X	X
		A fearless attitude towards technology shown by moms and female teachers will be picked up by girls		X	X
		Reassure girls that it is their skills and abilities earning them good grades, not their gender appeal	X	X	
		Provide a cooperative, collaborative, interactive learning environment (girls prefer this over individual work)	X	X	X
		More time spent with computers leads to a more positive view of them			X

Resources		
	Description	Provides
Web Sites	Junior First Lego League http://www.firstlegoleague.org	Geared to children aged 6 to 9 years old and utilizes a m odified framework of First Lego league.
	Getting Girls Interested in Computers http://math.rice.edu/~lanius/club/girls.html	Links and information to Women and Girls in Technology. Supported by Rice University faculty.
	Girl Scouts http://www.girlsgotech.org/	Set your sights on Math, Science and Technology – Supported by Girl Scouts of the United States of America
	The Science, Technology, Engineering and Mathematics (STEM) Education Institute http://k12s.phast.umass.edu/stem/	The Institute was formed to bring these people together, facilitating joint efforts and avoiding unnecessary duplication. Above all, the Institute was formed to play a major role in meeting the University's goals in academic outreach, teaching and learning, research, diversity, and multiculturalism. Coordinating these efforts has increased the opportunities to obtain external grants and to allow the University to play a leadership role in the national and state efforts to reform and improve science, technology, engineering, and mathematics education.
	Girl Tech http://www.girltech.com	Web site for girls, parents and schools introducing methods for interaction and education about the world of technology.
	Women and Girls' Tech Up http://www.techup.org	Our Goal: to encourage women and girls - and the organizations which serve them - to use technology to share ideas, opinions, support, creativity and political action
Books	How Jane Won Author: Dr. Sylvia Rimm	55 Successful women share how they grew from ordinary girls to extraordinary women.
	See Jane Win Author: Dr. Sylvia Rimm	A smart girl's guide to success
	The Technology Book for Girls and Other Advanced Beings Author: Trudee Romanek	A unique technology book especially for girls. Find out how technology is part of everyday life. Exercise your brain with mind-bending activities. Meet 8 women who use technology in their careers.
	Cool Careers for Girls in Computers Author: Ceel Pasternak, Linda Thornburg	Explore the backgrounds of women in computer careers. You'll get a sneak peek into their real lives and how their careers affect their families, as well as the personality traits and physical and mental abilities needed to do these jobs
	Computers in Our World Author: Lisa Strite Jedlicka	Presents a look at how computers are used in our world today.
Business	Michigan Council of Women in Technology Foundation Diane Cairns K-12 Program Director mcwt@cairnsmgt.com www.mcwt.org	Presentations by Business Women. Information about Computer Science student participation. Summer technology camp held in June for 4th to 7th grade girls. Supports High School Student Interest Group. Provides camp scholarships for girls to attend technology camp. Provides college scholarships for girls studying computer science and information technology. Provides grants for girls to compete in technology programs.