

GIRLS ON ICE

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A mountaineering adventure and learning experience for young women



A tuition-free outreach program

Girls on Ice is a unique, FREE, wilderness science education program for high school girls. Each year a team of 9 teenage girls and 3 instructors spend 11 days on Mount Baker in Washington State exploring and learning about mountain glaciers and the alpine landscape through scientific field studies with professional glaciologists, mountaineers, and artists.



A single crystal of ice.

Exploring the ablation area.



Finding treasures? melting out of the ice: a dreadlock someone threw into a crevasse many years ago.



Heidy (Central Falls, Rhode Island) learning to use a compass, read a topographic map and tie basic knots



Kaia (Morristown, Vermont) measuring discharge in a surpraglacial stream.



Sune (South Africa, left) exploring a glacier cave.

Our teaching philosophy emphasizes using the concept of "Immersion" to teach "Fluency" in Science.

We believe that

- teaching the **whole process** gives them ownership of the science
- teaching to the **whole student** puts the science in context
- diversity** inspires new ideas, new approaches, and better science in the end

Connecting Art and Science

Teaching careful scientific observation of the landscape through art skills in field sketching.



Who are the Girls?

This program is not intended to be a "reward" for past success and high grades, but a foundation for future success.



Within that philosophy, we choose a diverse team of girls, including:

- Peer leaders who have some outdoor experience and growing leadership skills,
- Science "nerds",
- Urban girls and those from underserved populations,
- Girls from families struggling through hardships.



Marie (Kasigluk, Alaska)



Angelica (Lemon Grove, California)



Bethany (College Station, Texas)

Girls On Ice was one of the most amazing experiences I have EVER participated in. I learned to challenge myself and really push my limits in accomplishing what seemed to be impossible. One of my most memorable times of the trip was when I reached the summit! Sharing time with everyone on the glacier was a sublime experience that made me more aware of how beautiful nature is and how we need to preserve it! I wouldn't trade my time I spent with GOI for anything in the world! (Angelica, Lemon Grove, California)

The program Girls On Ice changed my life. My life was difficult before I left my home. When I came back I quit my old lifestyle. I learned that I could do anything I never thought I could do. Once you experience it, it will change your life. (Marie, Kasigluk, Alaska)

Overall this was one of the greatest things I've ever done. I learned so much about climate and the nature around me and also about the people around me. Never in my life would I think I'd be on a glacier and on a mountain, especially coming from a city where there are no trees and no vegetation. I learned so much about myself and I felt like I gained so much from this!! I'm more confident and more of a leader. (Heidy, Central Falls, Rhode Island)



Three girls and two instructors one the summit.



A "bomb" of Shermanite - a hydrothermally altered rock.



Setting the shermanite on fire - the sulfure in it burns quite well.

Exploring the accumulation area and the upper mountain



Exploring the volcano



The Dragonhole. (Note people for scale)



The crater glacier is punctured by fumaroles.

Girls on ice instilled an intellectual curiosity in me that I had not experienced since early adolescence. Being trapped in the North Cascades for nine days gave me a unique opportunity to set goals for myself and have the confidence to live by them and push myself as a mountaineer, scientist, and young woman. (Annie, Juneau, Alaska)



Hiking down the mountain in the fog.

After a shower at the Environmental Learning Center on Diablo Lake.



<http://girlsonice.org>