

STREAM GIRLS



A DIGITAL GUIDE TO STREAM
GIRLS IN COLORADO



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Every person is a citizen of her watershed, and Trout Unlimited has partnered with Girl Scouts USA to show what that means to us.



WHAT IS STREAM GIRLS?

STREAM Girls is Trout Unlimited's outdoor STEM program for girls. This watershed experience employs STEM-education (science, technology, engineering, math) plus recreation and arts to explore a local stream. By visiting a local stream and having the opportunity to observe it as scientists, anglers, and artists, girl scouts in grade's 4-8 (juniors and cadettes) will get the complete picture of what their stream could mean to them.

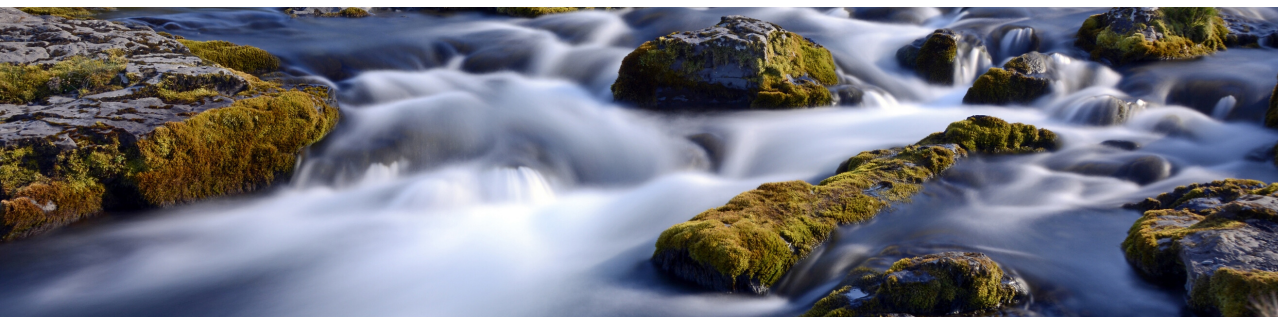
Over the course of multiple sessions, Trout Unlimited volunteers lead the Girl Scouts in observing a stream, collecting flow data, sampling macro invertebrates (aka aquatic bugs), fly tying, and fly casting.

STREAM Girls in Colorado would not be possible without the generous giving of Anadarko Petroleum.

ACTIVITY DESCRIPTIONS

Eight core activities make a STREAM Girls program. You may choose activities that fit the interest and time frame for your event; however, doing all eight core activities is required for your program to be considered a STREAM Girls “patch” program. That is, in order for the scouts to receive the patch, they must complete all of the following eight activities:

1. STREAM Walk
2. Fly casting
3. Go with the Flow!
4. Macro-invertebrate survey
5. Fly tying
6. STREAM stations and bracelets
7. Some amount of reflection throughout
8. Some amount of discussion throughout



ACTIVITY DESCRIPTIONS



Over the course of multiple sessions, Girl Scouts complete six different activities in addition to a series of discussions and observations in order to receive the custom STREAM Girls patch. Girls will act as scientists, anglers, and artists as they observe a stream, complete a stream scavenger hunt, collect flow data, sample macro-invertebrates (aka aquatic bugs), tie flies, and learn fly casting.

STREAM Walk

The objective of the STREAM Walk is to have the Girl Scouts deeply observe all aspects of a stream. Using their handbooks as guidance, girls will gather information such as the name and location of the stream; current weather conditions; the depth, width, clarity and color of the stream. They will make note of the smell and sounds they hear around the stream, as well as making descriptions on the bottom of the stream and the surrounding riparian zone. Girls will also take note on the presence of wildlife and human activity in and around the stream.

Go with the Flow!

Girl Scouts will use a circular object, stop watch, yard stick, measuring tape, and survey flags to measure the flow of the stream. Girls will build an understanding about the movement of water and how human and riparian conditions can affect that.

Fly Tying

Girl Scouts will be introduced to flies and basic fly tying techniques. Each girl will have a fly tying kit and will be introduced to a basic fly such as the san juan worm, woolly bugger, or basic midge.

ACTIVITY DESCRIPTIONS

Macro-invertebrate Sampling

Girl Scouts will set out to discover the invertebrate life of a stream and to measure the abundance and diversity of this life as a sign of long-term water quality. The girls will go through a few different processes to collect macro-invertebrate samples. Some of the girls will be turning over rocks and other debris around the stream. The others will be using a net to kick up stream debris and macro-invertebrates. All of the girls will observe and categorize the aquatic insects using spoons, a tarp, magnifying tools and ice cube trays.

Fly Casting

Girl Scouts will learn the basic mechanics of fly fishing. The girls will learn about the different parts of a fly rod, including the fly reel and fly line. They will learn the difference between a regular spinning rod and a fly rod. Lastly, they will get a basic lesson about how and why a fly rod works.

STREAM Scavenger Hunt

During the STREAM Scavenger Hunt, Girl Scouts will be introduced to the idea that healthy streams have many parts and they will identify the nine ingredients that make a healthy stream. Each team of girls will get a set of nine survey flags. The survey flags will be labeled water, riffles, rocks, trees, wood, short plants, sky, animals, and bugs.

STREAM Bracelets

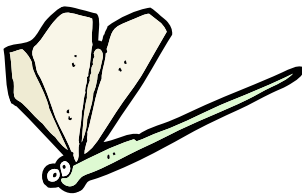
Girl Scouts will end the day by creating a bracelet that reflects the ingredients of a healthy stream. The girls will use fly line and beads representing water, riffles, rocks, trees, wood, short plants, sky, animals and bugs.



EQUIPMENT

General

STREAM Girls Field Notebook
Mechanical Pencils
Colored Pencils
Markers
First Aid Kit
Hip Boots
Wader Belts
Bug Spray
Sun Screen
Clipboards



Macro-invertebrate Survey

Wide Opening Pipettes
White Sampling Trays
White Tarp
Invertebrate Magnifier
Wash/Spray Bottles
Laminated Macro-invertebrate Key
D-Net
Kick Net
Forceps
Ice Cube Trays
Plastic Spoons
White 5-Gallon Bucket

Go with the Flow!

100' Measuring
Tape
Metal Yard Stick
Plastic Practice
Golf Balls
Large Net



EQUIPMENT

Fly Casting

Polarized Sunglasses
Hula Hoops
Fly Rod/Reel Combo
Fly Lines
Leaders



Fly Tying

Vises
Fly Tying Tool Kits
Thread
Hooks
Fly Tying Materials
Small Bags

STREAM Scavenger Hunt/Bracelets/Closing Ceremony

Recycled Fly Line
STREAM Ingredient Beads
Survey Flags
STREAM Girls Patches
Certificate of Achievement



CHAPTER INFORMATION

Partnership Overview

This document gives an overview of the partnership with GSCO. It provides information regarding roles & responsibilities, program details, and venue information.

[Link to document](#)

Equipment Kit

With funding from Anadarko, Colorado Trout Unlimited was able to put together a kit of equipment necessary for a STREAM Girls event.

[Link to document](#)

Remaining Event Costs

With access to the STREAM Girls Equipment Kit, minimal expenses will be left for chapters.

[Link to document](#)

Volunteer Pool

Colorado Trout Unlimited set out to create a pool of volunteers willing to volunteer for future STREAM Girls events. This pool consists of TU members, life-time girl scouts, Colorado Women Flyfishers, Women in Oil and Gas, and people working in various STEM Careers. By working with CTU to put on a STREAM Girls event, you will have access to this pool of volunteers.

Event Checklist

You can use this checklist to ensure that correct steps are taken to putting on your own STREAM Girls event!

[Link to document](#)

Finding a Venue

Use this document to help you identify a sufficient STREAM Girls venue in your community

[Link to document](#)

COLORADO TROUT UNLIMITED RESOURCES

Sample Event Plan

A detailed schedule of events to provide for volunteers. This document will provide information specific to your venue, roles of volunteers, and locations of activities.

[Link to document](#)

Sample 1-Day Schedule

A less detailed schedule of events that can be provided for guardians/troop leaders on the day of the event.

[Link to document](#)

Sample STREAM Girls Event Flyer

[Link to document](#)

Girl Scout Evaluation

Use this evaluation to get feedback from the girl scouts towards the end of the event. Girl scouts are used to evaluating programs, so don't leave this out!

[Link to document](#)

Volunteer Evaluation

After the event is all said and done, use this evaluation to survey your volunteers to get feedback on their experience. It is recommended to use an online survey platform such as google forms to collect this information.

[Link to document](#)

Girl Scout Packing List

This packing list will be sent out to girl scouts prior to the event.

[Link to document](#)

COLORADO TROUT UNLIMITED RESOURCES

STREAM Girls Safety Notes

A collection of stream safety notes.

[Link to document](#)

CTU Photo Waiver

Have every attendee of your STREAM Girls event fill out a photo release. This includes guardians/troop leaders, girl scouts, and volunteers. Bring extra copies to each event.

[Link to document](#)

GSCO Photo Release

Print out extra copies of the GSCO photo release to have at the event in the case that a guardian/troop leader does not bring it pre-signed to the event.

[Link to document](#)

Trout Unlimited Youth Liability Waiver

Have every parent sign a youth liability waiver for their girl scouts. Bring extra copies to each event.

[Link to document](#)

Trout Unlimited Adult Liability Waiver

Have every volunteer sign a liability waiver before your event.

[Link to document](#)

Emergency Contact Form

Have every volunteer fill out the emergency contact form before your event.

[Link to document](#)

NATIONAL TROUT UNLIMITED RESOURCES

STREAM Girls Volunteer Guide

[Link to document](#)

STREAM Girls Training Webinar

[Link to webinar](#)

Dichotomous Key

[Link to document in english](#)

[Link to document in spanish](#)

STREAM Girls Patch Design

[Link to document](#)

Shipwreck Beads

[Link to website](#)

STREAM Girls Promo Video

[Link to video](#)

STREAM Girls Instructional/Promo Video

[Link to video](#)

Bulk Youth Membership Form

[Link to document](#)

One-Page Reference Sheet

[Link to document](#)

STREAM Girls Field Handbook

Print this spiral bound with spiral large enough to hold pencil.

[Link to document](#)

Certificate of Achievement

Print this on thicker paper.

[Link to document](#)

Patch Ordering Website

Email Mike Henry at mike@artexgroup.net. Provide document linked below.

[Link to website](#)

[Link to document provided to artex group](#)