

Trout in the Classroom Startup Guide



Thank you for your interest in Trout in the Classroom (TIC)!

TIC is a hands-on environmental education program which enhances STEAM (Science, Technology, Engineering, Arts and Mathematics) and state learning standards in classrooms. Students study and raise trout from eggs to fingerlings (baby trout) in their classroom aquarium then release fingerlings into their natural habitat. Through classroom interaction with living and growing fish, TIC helps to spark student's curiosity in learning while introducing complex concepts such as watersheds, riparian buffer zones, and stream ecology.

TIC in NYC & the NYC Watersheds

In Southern New York, the <u>NYC Department of Environmental Protection (DEP)</u> partners with <u>Trout Unlimited (TU)</u> to help students understand and learn about the source of <u>NYC's drinking water supply</u> from the upstate Catskill, Delaware, and Croton watersheds. The network of 250+ TIC teachers in NY meet annually to exchange lessons, activities, resources, and collaborate on stewardship projects. Any teacher is welcome to join TIC but is responsible for procuring their own equipment. TIC provides trout eggs and food, helps obtain permits for releasing the trout, and provides guidance and support during the school year.

Send us an <u>email</u> to be added to our distribution list via Google Groups. TIC uses this list to send monthly enewsletters with important program reminders from September through June.

TIC Equipment

To begin TIC, you will need to purchase and set up all the equipment before receiving trout eggs in the fall. Equipment costs are approximately \$1,500. They can be purchased piecemeal or as a kit from our partner This equipment generally lasts 8-10 years and maintenance will be approximately \$100/year.

Here is the list of items needed for starting TIC:

- 1. Purchase a <u>35-55 gallon tank</u> from a local retailer and a <u>stand</u>. Some local pet stores have a summer sale for tanks that start at \$1/gallon. No light needed; cover is nice to have but not necessary. (\$250-\$300)
- 2. Order a chiller from <u>TradeWind</u> by contacting Hal at (760) 233-8888 or <u>by email</u>. This is the best and easiest chiller to install and maintain. (\$693)
- 3. Order all other items from Stephanie Welsh at That Pet Place (888) 842-8738 ext. 1288. We recommend Kit #2, which includes everything you need from the filter to the water conditioners and healthy tank bacteria. (~\$420 including shipping)
- 4. Insulate the entire tank with foam board or other insulation material. The trout eggs are sensitive to light, so covering the tank completely at first is necessary. You can buy insulation material or use any recycled materials from your school.

Tank set-up typically takes place in late-September. Check out the videos on the TU site for help!

Funding TIC at your School

There are resources available if your school is not able to fully cover the costs of the TIC equipment. We prioritize Title I and under-resourced schools and will work hard to support you and get you started with TIC! Please reach out to us for any questions or assistance with finding the funding you need.

- <u>Donors Choose</u> Generate support from within your school community and beyond. Check out a <u>sample</u> <u>project</u> that was funded. Make sure to share your link with us and your <u>local TU chapter!</u>
- <u>Catskill Watershed Corporation</u> CWC provides grants to schools in NYC and NYC's West-of-Hudson watersheds. The grant cycle opens in November for starting the program in the following school year.
- <u>Local TU chapters</u> Volunteers from the local chapter can help with everything from tank set-up to trout release day activities. They may also be able to direct you to local resources and funding.
 - Croton Chapter
 - New York City Chapter
 - Western New York Chapter
 - Long Island Chapter
 - o Catskill Mountain Chapter
 - o Mid-Hudson Chapter

Can't find your chapter above? See the full list of NY State chapters here, or contact Lindsay Agness at lindsay.agness@gmail.com for assistance.

Trout Release Day Funding – There are several sources for funding transportation to trout releases in NY including: <u>Connect Kids Grants</u> through New York State Parks and <u>Watershed Agricultural Council Bus Tour</u> Grants for NYC and the NYC Watersheds.

Frequently Asked Questions

- What is the timeline for TIC? Check out this timeline for a typical classroom.
- Where do I get trout eggs? Most TIC classrooms in Southern New York receive brown trout eggs from the NYS
 <u>Department of Environmental Conservation (DEC) hatchery</u> during our annual Fall TIC Teacher Training and
 Trout Egg Distribution in October. Registration is free. Some schools choose to purchase trout eggs from the
 <u>Cold Spring Harbor Trout Hatchery</u> on Long Island or work with other DEC hatcheries to secure brook trout
 eggs. You must prepare your aquarium before receiving the eggs!
- How do I set up the tank? Setup information and step-by-step videos can be found on the <u>TIC Website</u>. TU volunteers may be able to assist in setting up initially, if needed.
- Who maintains the trout and their tank? It is the school's responsibility to maintain the health of the trout and tank ecosystem. Find daily, weekly, and monthly checklists here. The Fall TIC Training generally features a workshop on caring for trout and maintaining equipment.
- Where can I find lesson plans? There are endless ways to engage your students using TIC in STEM subjects, art, social studies, and more! Here are some ideas from all over the country.
- What if something goes wrong? Many additional FAQ's are answered on the trout care page. You can also join the TIC/SIC National Network Google Group to ask the broader TIC community.
- Where are the trout released? There are no approved release sites in NYC, but there are many others
 throughout the state. Our premier site for April/May trout releases is the Cross River at Ward Pound Ridge
 Reservation in NYC's East-of-Hudson Watershed. We work with DEC to find release sites for all participating
 schools that are raising trout from approved hatcheries. If you have a stream in mind, you can submit a trout
 release application and we will investigate getting permits.

Please don't hesitate to contact DEP's TIC Program Coordinator Nicki Alexander at nalexander@dep.nyc.gov for any additional questions. We are looking forward to helping you get started!