

# Teaching Conservation

## Trout-In-The-Classroom



Students at Foothills Academy in Cave Creek

**“They’re hatching!”**  
**“Cool.”**  
**“Awesome!”**  
**“Yesterday they were just eggs!”**  
**“We need to take care of the little fishes now.”**

Words of excitement every teacher and conservationist wants to hear from students.

By John Doss and DJ Zor

The Arizona Council and chapters of Trout Unlimited are bringing the excitement of the outdoors to classrooms throughout Arizona with an expanded Trout-In-the-Classroom (TIC) Program. Trout-In-the-Classroom brings nature into the schools by offering students of all ages a chance to raise trout in a classroom setting. Caring for the fish fosters a conservation ethic in the students and a connection between caring for the fish and caring for the water. The program is a unique way to bring lessons about aquatic ecosystems, water quality, life cycles, food, fish biology and fishing recreation into the classroom.

Arizona’s Trout-In-the-Classroom is an interdisciplinary program in which students in grades 3 - 12 learn about coldwater conservation while raising trout from eggs to fingerlings in a classroom aquarium. The program has applications in environment, ecology, science, mathematics, social studies, language, fine arts, and physical education. The program also offers classroom and field trip curriculum to give the students both a hands-on and outdoors experience to enable them to understand the importance of our fisheries and water conservation.

Throughout the school year Trout-In-the-Classroom allows students to:

- Raise trout from egg to fry.
- Monitor tank water quality.
- Learn to appreciate water resources and the importance of cold-water conservation.
- Foster a conservation ethic.
- Begin to understand and appreciate ecosystems.
- Apply science, math standards and concepts to real-world applications.

One of the many reasons for schools enrolling in the TIC program is the diversity of subject matter that teachers can integrate into their lesson plans through raising trout. During the year, each teacher can tailor the program to fit his/her own curriculum needs. TIC can easily help teachers cover S.T.E.M. (Science, Technology, Engineering, Math)

as well as art, reading, language arts, social studies, and even Arizona's history. This unique learning experience allows students the opportunity to raise, care for and maintain the trout in their classroom starting in the fall through the end of the school year. At the conclusion of the school year, the trout will be picked up by the Arizona Game & Fish Department.

The TIC program has many interdisciplinary applications and connects all students (urban, suburban, rural) to their community by reinforcing the importance of water and wildlife conservation.

Trout are an ideal subject to introduce these topics. The timeline of a trout's development synchs well with the school year calendar. Eggs hatch and fish grow while school is in session, providing students the opportunity to experience life cycles as part of their education. As an indicator species, trout directly reflect the quality of water in which they live. It has been said that "If fish can't live in the water, we can't drink it".

### **In the Classroom**

Arizona's Trout-In-the-Classroom has ambitiously expanded in the 2015 - 2016 school year from 3 to 17 classrooms involving over 1,800 students. On September 12th, 12 new teachers and 20 volunteers attended a day-long workshop for training including equipment set-up, water quality, aquarium maintenance, care and feeding of the fish. Participating schools are located in Bouse, Cave Creek, Cottonwood, Flagstaff, Glendale, Goodyear, Litchfield, Paradise Valley, Payson, Peoria, Phoenix, Pine, Prescott, Scottsdale, Tucson, and Wickenburg.

In elementary school, the focus can be on caring, growth, understanding life cycles, and the seasons. A high school program might explore water chemistry, the nitrogen cycle, natural resource management, watershed geology and ecology. Young anglers better understand the value of their local fisheries when they have seen the trout life cycle up close and personal in this way.

These Arizona schools are now part of a network of over 4,400 classrooms in 36 states involving over 100,000 students.

Teachers comment that "one of the most positive aspects of the TIC program is that it takes science out of the text book and makes it come alive for students".

### **Partnerships**

Arizona's statewide TIC program is made possible through a unique partnership between The Arizona Council of Trout Unlimited, individual TU Chapters and volunteers, Arizona Fish and Game Department and the Arizona Sportsmen For Wildlife Conservation. This partnership provides curriculum resources, workshops for teachers, volunteers and program partners, technical support, trout eggs and funding.

Trout Unlimited is dedicated to providing staff and volunteer support for teachers, serving as a TIC go-to resource for teachers and is instrumental in securing funding to sponsor teachers in covering the cost of the equipment and program.

The Arizona Game and Fish Department provides the trout eggs, supplemental materials/equipment, staff and

volunteer support for teachers, and supporting curriculum materials and/or activities to aid teachers in the success of the program.

The Arizona State Council of Trout Unlimited received a generous grant from the Arizona Sportsmen For Wildlife Conservation (AZSFWC) to help fund a large portion of the equipment costs for starting many of the new schools in the program.

AZSFWC is an umbrella organization that serves wildlife conservation and sportsmen's organizations throughout the state of Arizona. Their membership is diverse yet focused on all things important to wildlife, its habitat and to furthering the hunting and angling heritage for future generations. The funding provided comes largely from their conservation license plate fund and is provided to organizations for work in one of three categories: habitat, education or hunter/angler recruitment projects. By going to [www.servicearizona.com](http://www.servicearizona.com) to renew a vehicle license, one can select to choose the option for a conservation plate which will cost an extra \$25. Of that amount, \$17 is returned to AZSFWC for funding eligible conservation projects such as the TIC program.

Volunteers are a key factor in supporting the teachers and the various components of the TIC program. The program is always looking for volunteers to assist in the expansion into more schools throughout Arizona. Anyone who is interested in knowing more about the program or its volunteer opportunities is encourage to visit [www.aztic.org](http://www.aztic.org) for more information.

### **The Future**

The vision of Trout Unlimited is to ensure that robust populations of native and wild coldwater fish once again thrive within their North American range so that children can enjoy healthy fisheries in their home waters. Trout-In-the-Classroom brings the importance of this vision directly to the members of this next generation allowing them to discover it for themselves.

"They're hatching!" "Cool." "Awesome." Arizona Trout Unlimited Council would like to hear these expressions of excitement in even more classrooms in the coming years and will be working hard to make that happen across Arizona.

For more information on Trout-In-the-Classroom and Trout Unlimited in Arizona visit [www.aztic.org](http://www.aztic.org) and [www.az-tu.org](http://www.az-tu.org).



**Small Fry Fish in a Tank**