

Aquaculture in Action

30 years of project-based learning in the classroom

In 1996, Maryland Sea Grant and University of Maryland Extension developed the Aquaculture in Action program for K-12 science teachers. This program, originally developed with Carroll County Public Schools, has been implemented in 35 schools across Maryland.

Students are encouraged to develop their own research topics to study, from water quality to food supply to fish disease. **Through project-based learning, teachers and students are connected with university research, applied environmental science, technology tools, and high-quality teacher professional development.**

Aquaculture education benefits students and teachers:

2 Connection to nature

Lifelong relationships created between students and local species of the Chesapeake Bay watershed

1 Scientific method

Students involved in the process of experimental design, data collection, and analysis

3 Environmental literacy

Students gain deep understanding of the ecological and environmental systems at play in aquaculture

4 Teamwork

Students encouraged to work as teams to design and complete projects, offering ownership and a feel for the modern workplace

5 Hands-on education

Projects promote hands-on applications of physics (water flow dynamics), chemistry (water quality monitoring), biology (fish and plant culture), and engineering (system design)

How the system works

Round, opaque tank provides calm environment for natural schooling of fish in one direction

