



Service Learning Overview

Water and Sustainability Program

Program Goals:

Empower students to become engaged citizens and environmental stewards by developing a better understanding of the value of water and ways to sustain its critical role in the natural environment and in our communities.

Service-Learning Philosophy:

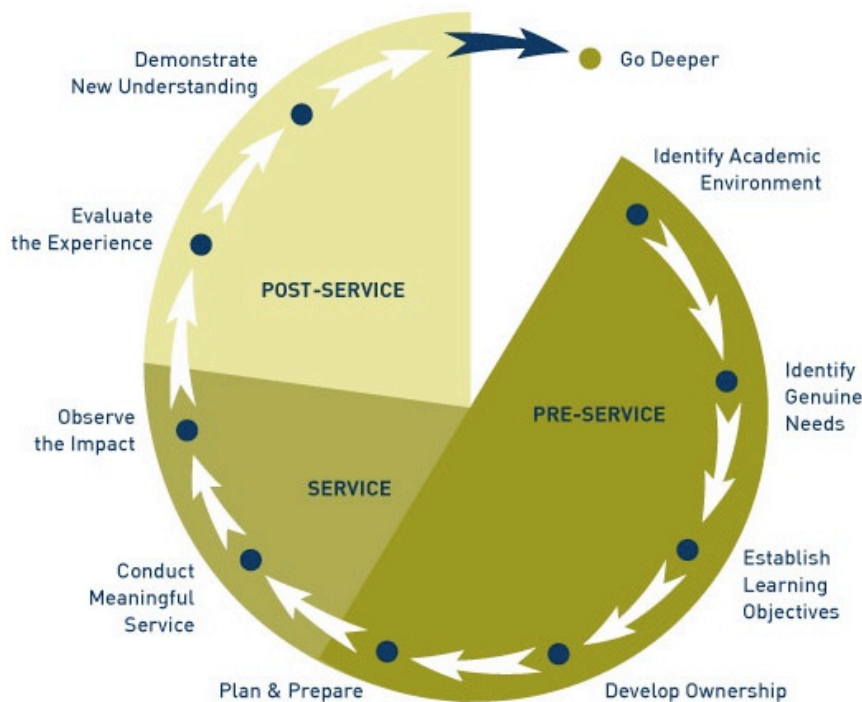
Service-learning is an educational strategy that integrates service to the community with existing academic curriculum. Utilizing this methodology requires a careful balance between participant leadership and teacher guidance. Projects are primarily led by participants and they should be involved in as much of the decision making and action steps as possible.

Service-Learning Standards:

According to the National Youth Leadership Council, quality service-learning should incorporate the following standards:

- ✓ Meaningful Service
- ✓ Link to Curriculum
- ✓ Reflection
- ✓ Diversity
- ✓ Youth Voice
- ✓ Partnerships
- ✓ Progress Monitoring
- ✓ Duration and Intensity

The Service-Learning Cycle





Service Learning Steps

Water and Sustainability Program

1. Project Selection

- 🌍 Identify an environmental community need
- 🌍 Brainstorm solutions
- 🌍 Select an action

2. Planning the Action

- 🌍 Build background knowledge
- 🌍 Conduct research
- 🌍 Take steps toward accomplishment of goal

3. Project Sustainability

- 🌍 Assist in the development and implementation of maintaining the project in the future

4. Project Implementation

- 🌍 Take action to fulfill the environmental community need on the "Project Day"

5. Dissemination

- 🌍 Spread the word throughout the school/community

6. Celebration and Program Reflections

- 🌍 Reflect upon knowledge and skills acquired (cognitive reflection), emotions and attitudes felt (affective reflection), and the experience (process reflection)
- 🌍 Celebrate all contributions
- 🌍 Evaluate overall program





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Concepts Addressed:

1. Sustainability, particularly with respect to water management
2. Conservation Biology
3. Environmental connections (local and global)
4. Career awareness and stewardship

Program Outline:

Lesson 1: Water in the West ([Denver Water Led](#))

- ✓ This lesson will provide an overview of the program and introduces the service learning model. The activities and discussion will improve students' understanding of water availability and how we use and manage water in Colorado. This lesson will include the pre-test assessment.

Lesson 2: Water in the Community ([Teacher Led](#))

- ✓ This lesson will help introduce the idea of water quality to students by looking at different ways water is used in a community and potential ways pollution enters waterways.

Lesson 3: Community Inventory ([Denver Zoo Led](#))

- ✓ Students will explore environmental issues in their community and begin discussion service project ideas.
- ✓ Denver Zoo staff will bring live animals to this lesson.

Lesson 4: Project selection ([Denver Zoo Led, DW Support](#))

- ✓ The Denver Zoo teacher will help guide students to collaborate, choose, and plan an appropriate service project for their community.
- ✓ Denver Zoo staff will bring live animals to this lesson.

Lesson 5: Water Quality Connections ([Denver Water Led](#))

- ✓ Denver Water staff will lead a filtration design challenge





Water and Sustainability

Program Overview Continued

Lesson 6: Field trip to Denver Zoo

- ✓ Denver Zoo staff will lead a sustainability tour on zoo grounds allowing students to see firsthand some of the conservation efforts at Denver Zoo. This field trip will also focus on water quality and career connections.

Lesson 7: Field trip to Denver Water's Recycled Water Treatment Plant

- ✓ Students will tour Denver Water's Recycled Water Treatment Plant as well as conduct water quality chemistry testing.

Lesson 8: Water Conservation ([Denver Water Led](#))

- ✓ This lesson will introduce the concepts of personal water conservation and how groups action can yield incredible results. The activities and discussion will help students synthesize their understanding of water-wise choices and ways to improve conditions for wildlife in a sustainable fashion.

Lesson 9: Dissemination the Public Message ([Teacher Led](#))

- ✓ Students will take their message created in Lesson 9 to the public.

Lesson 10: Reflection and Celebration ([Denver Water Led](#))

- ✓ This is quality time to reflect on this project, acknowledge the impact this work has had on students and the community and celebrate! This lesson will include the post-test assessment.

Flexible Support Day: Service Project Support ([Denver Zoo/Teacher Led](#))

- ✓ DZ staff will work with teacher to determine best placement of support day depending on student projects.

