



Arizona Project WET Tucson Water Planting for a Rainy Day Impact Report

2025-2026

*Developing Water Stewards Through
Student-centered Instruction and
Arizona-specific Content*



Cooperative Extension



ARIZONA
project **WET**
WATER EDUCATION TODAY



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Arizona Project WET

Impact on Water Stewardship

Arizona Project WET's Mission

It is imperative that Arizonans understand the interconnectedness of water resources from a local, regional, and global perspective. Arizona Project WET (APW) brings to the surface water-use practices that affect availability, dependability, access, and sustainability. APW program objectives, centered in the unifying theme of water, engage teachers and students while bringing real-world relevancy to science, technology, engineering, art, and mathematics (STEAM) learning. APW supports water stewardship and STEAM literacy by authentically and meaningfully engaging educators, students, and community members. Arizona Project WET's mission is to meet the needs of our community by using relevant, research-based educational strategies and techniques in helping people develop knowledge and skills that equip them to act for water stewardship.

Community Water Stewardship

For nearly three decades, APW educates, engages, and connects community members (students, educators, administrators, residents, businesses, and municipal stakeholders) through educational outreach to raise awareness of current and future challenges to Arizona's water resources and sustainable solutions to help mitigate them.

The APW team delivers water-focused programming with exceptional skill: meaningfully connecting content to participant and participant to action.

APW's goal is to meet the needs of our community by using relevant, research-based educational strategies and techniques to develop knowledge and skills that inspire action for water stewardship.

APW's programming supports creative problem-solving across the K-12 continuum, diving into real-world learning scenarios. The flow of information also relates STEAM-based content to areas of study and the many careers "in water". Finally, APW programs empower educators to implement practices that highlight and model sustainable water use.



"Feel something. Learn something. Do something."
- Lisa Townsend, AZ Project WET Director

Planting for a Rainy Day (PfaRD)

03

2025-26 Outreach

204

STUDENTS

2

TEACHERS

6

CLASSES

Summary:

Planting for a Rainy Day (PfaRD) is a unit of study designed to help students understand the interaction between Arizona environments and rainwater. Students explore how rainwater may be managed in and around communities. They design rain garden basins that can address drought/flooding issues by employing STEAM skills and academic practices.

Unit Guiding Question:

How can we harvest rainwater to transform an impermeable plot of land into an outdoor oasis?

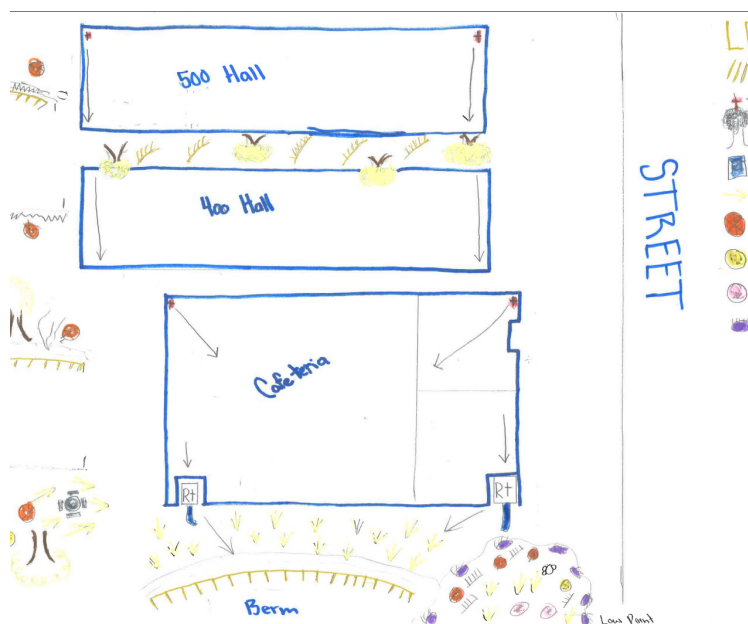


From Storm to Basin



How Planting for a Rainy Day Works

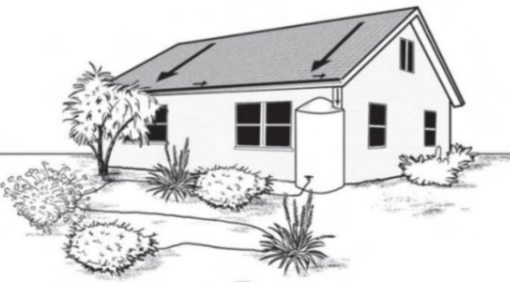
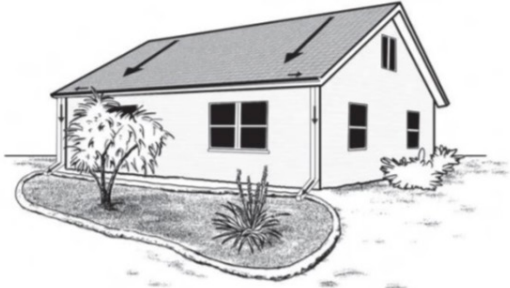
During this unit, students consider the stormwater challenges in developed environments compared to “natural” ones. Students identify a “hot, dry” patch of pavement in their local school watershed and determine storm water drainage patterns. By calculating the amount of runoff that can be collected in the area, and then applying rainwater harvesting and smart landscaping techniques, students will design an attractive water-wise rain-garden basin habitat that can help reduce flooding, support biodiversity and create a cooler, healthier community.



Planting for a Rainy Day In the Classroom

By the end of this unit of study students will:

- **Define** transpiration and evaporation to explain how these water cycle processes are related to plant and animal adaptations for water conservation and temperature management.
- **Identify** native plants and animals that live in Arizona's deserts and decide which native plants are appropriate for creating a water-wise, biodiverse healthy garden.
- **Analyze** the "watershed and groundwater systems" of their school grounds, determining rainwater drainage patterns, surface porosity and temperatures, and places where water leaves the grounds or connects to groundwater.
- **Calculate** the amount of rainwater that can be collected from roofs for storing and using rainwater while also implementing strategies for natural cooling and remediating "hot pockets" on school grounds.
- **Explore** the connections between the processes of the water cycle, the urban watershed environment, and the groundwater system.
- **Create** design drawings for a water-wise garden with supporting details and documentation (species list, water use, plant hardiness, wildlife interaction, and seasonal implications) that support a water efficient, biodiverse desert urban landscape.



YOUR IMPACT

Planting for a Rainy Day

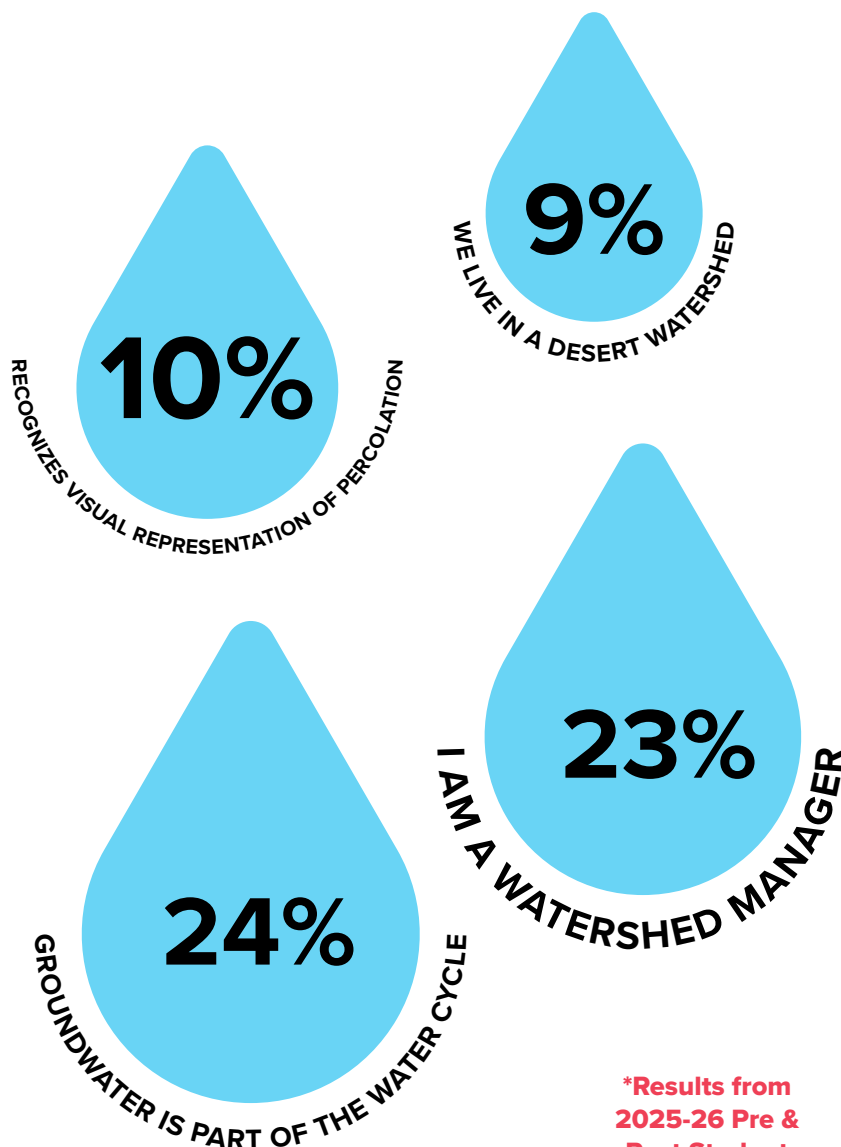


*Average Increase in Student Understanding:

1st YEAR OF A NEW PARTNERSHIP!

This year marked the start of a partnership with Sunnyside Unified to deliver a unit of study to engage high school students in water science and conservation.

Through our collaboration with Tucson Water and Sunnyside Unified we were able to reach 204 students and 2 teachers at Sunnyside High School.



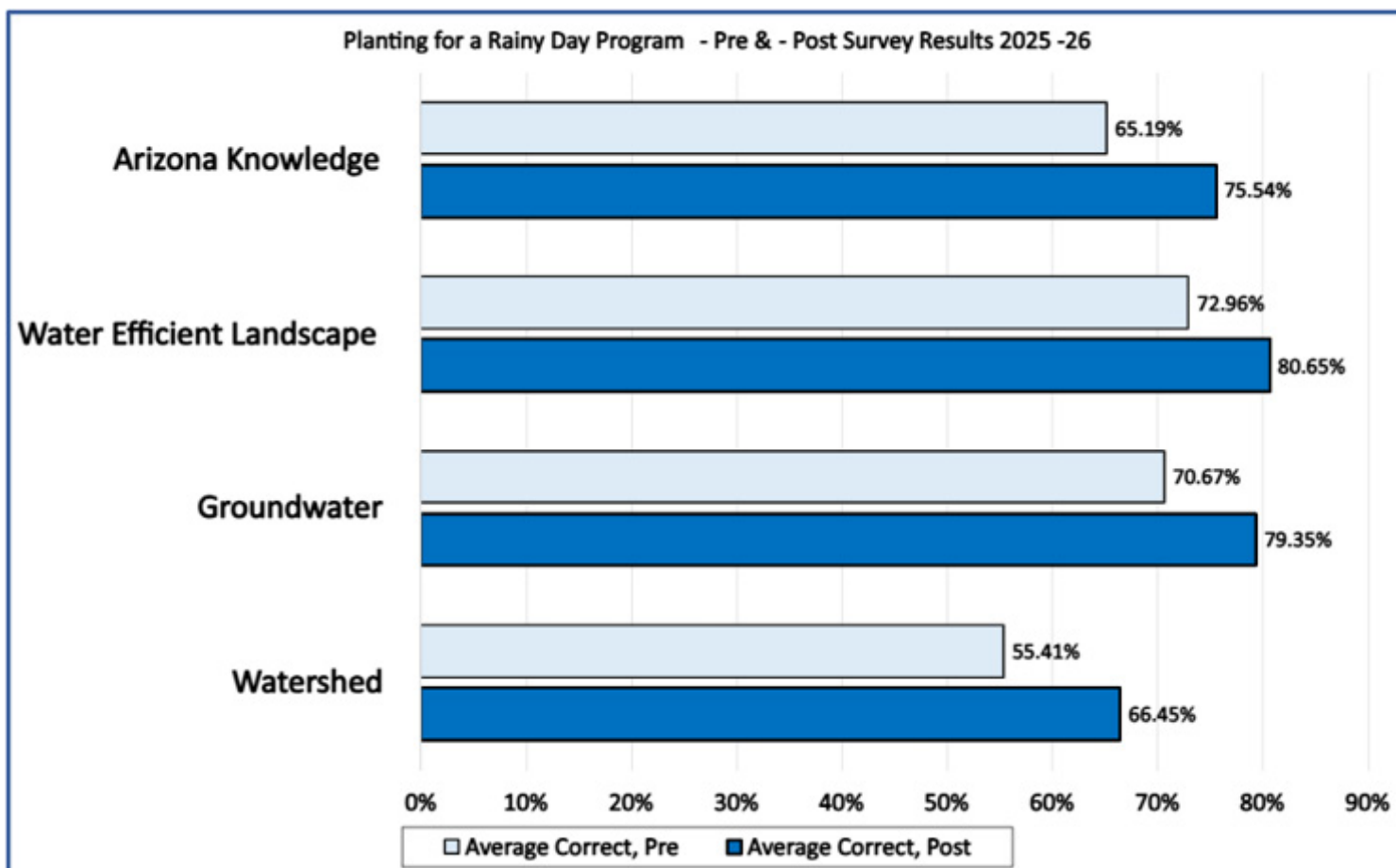
*Results from
2025-26 Pre &
Post Student
Survey

Results You Can See



MAKING WAVES

Teachers were asked to have students take a pre and post survey as part of the PfaRD program. The graph below displays the difference between the average correct answers before the unit of study, versus the average correct answers after the unit of study was completed.



Results from 2025-26 PfaRD Pre & Post Student Survey

EDUCATOR ENRICHMENT

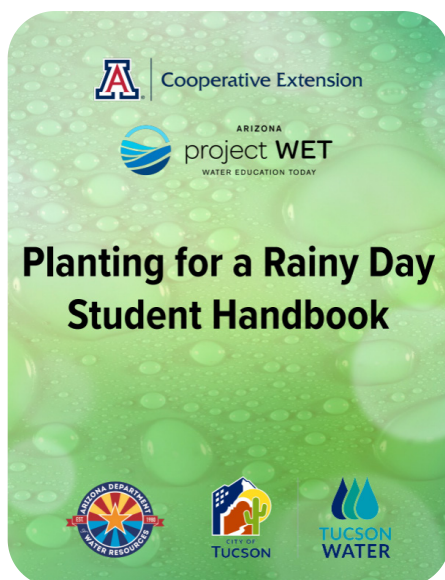
Teacher Trainings

The PfaRD unit of study kicks off with the teacher professional development workshop, which all teachers new to the program attend. During this workshop, APW instructors connect teachers with tangible reference points and supporting resources in physical science, engineering, and environmental science through exploration, inquiry, and technology.

Educators receive:

- Examples of how to lead activities and lessons
- Relevant background knowledge and content
- The Arizona Project WET Planting for a Rainy Day Curriculum and other resources

These materials are designed to enhance and extend student learning in the classroom.



Fairy Duster



Palo Verde



Ocotillo



Thank you!

The 2025-2026 Planting for a Rainy Day Program was initiated with great success as we engaged 204 high school students and 2 teachers from Sunnyside High School through interactive water conservation education.

As we look ahead to the 2026-2027 school year, we are excited to strengthen this partnership with Sunnyside USD as we continue to expand our reach across Southern Arizona!

We sincerely thank you for your ongoing support and assistance, which make this meaningful and important work possible.



Our programs are made possible through the generous support of sponsors, municipalities, and dedicated community members who collaborate to increase water stewardship across Arizona. We deeply appreciate your commitment to APW's programming!

AZ



Arizona Project WET

PfaRD Impact Report

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