

Conserve Water with Xeriscaping Techniques

A xeriscape (ZARE-eh-scape or ZEER-eh-scape) is a landscape that is designed to reduce the need for irrigation or other supplemental watering beyond what nature provides. Although commonly associated with desert climates, xeriscaping principles can be applied to landscape design in any climate, including school and youth gardens.

Coined in the 1980s by Denver Water, a public water utility, the term *xeriscape* derives from the Greek prefix *xeros*, meaning dry. The concept was introduced as a way to help residents use less water while maintaining an attractive landscape. It also offers alternatives to the notion that a well-maintained landscape must include expanses of manicured (and thirsty) lawns.



Designing a landscape using the principles of xeriscaping has many benefits. Xeriscaping:

- Conserves water, a precious natural resource.
- Saves money by reducing water consumption.
- Saves time and effort required for watering.
- Promotes biodiversity by taking cues from the region's natural plant communities.

These benefits of xeriscaping are relevant for youth gardens, even in regions with adequate rainfall. Xeriscaping offers abundant opportunities for learning about water conservation, the water cycle, soils, and ecosystems. It also reduces watering chores, which can be critical when relying on volunteers and during extended breaks.

The seven fundamental principles of xeriscaping set forth by Denver Water are:

1. Planning and Design
2. Soil Improvements
3. Efficient Irrigation
4. Plant Zones
5. Mulches
6. Turf Alternatives
7. Maintenance

Planning and Design

All gardens benefit from careful planning and wise design. When designing with xeriscaping principles in mind, pay extra attention to water:

- Where are the spigots or other water sources?
- Are there slopes that naturally direct rainfall toward certain spots?
- Are there any low spots that stay consistently moist or wet?
- Check the soil in different areas. Is it sandy (water drains quickly), clay (holds water), or something in between?
- What areas are shaded, and at what times of day?
- What direction does the wind blow? Are there areas protected from the wind by buildings, fences, or hedges? (Wind dries out plants and soil.)

These factors will inform your decisions about what to plant and where to plant it.

Learn more about the design process with these KidsGardening resources:

- [Designing and Placing the Garden](#)
- [Seeds of Success: A Toolkit for Growing School Food Gardens](#) (Chapter 4: School Food Garden Planning and Design)
- [Landscape Design for Youth Gardens e-Course](#) (\$25)

Soil Improvement

Although native plants are naturally adapted to a region's soil conditions, making them ideal choices for the garden, the reality is that most youth gardens will include at least some non-native vegetables, fruits, herbs, and flowers. Many of these plants do best in loose soil that is rich in organic

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matter. Organic matter loosens heavy clay soils and improves drainage, and it improves the fertility and water-holding capacity of sandy soils.

Learn more about improving soil and making compost with these KidsGardening resources:

- [Composting](#)
- [Seven Ways to Nurture Healthy Soil in Fall](#)
- [Digging into Soil: A Garden Practicum](#)

Efficient Irrigation

All plants need water, so youth gardens must include ways to provide water to all plants if nature doesn't provide enough. Even the most drought-tolerant plants may need supplemental watering until they get established. In general, avoid overhead watering, such as with sprinklers, because much of the water evaporates before it reaches plant roots, and wetting foliage can lead to disease problems. Soaker hoses and drip irrigation are better options because they deliver water directly to the soil, where plants can take it up. They also apply water slowly so it will be absorbed by the soil rather than running off.

Learn more about efficient watering with these KidsGardening resources:

- [Wise Watering](#)
- [Seeds of Success: A Toolkit for Growing School Food Gardens](#) (Chapter 6: Planting and Maintaining the Garden)
- [Native Wisdom: Growing Techniques of Indigenous Peoples](#)

Plant Zones

A common garden mantra is "Right plant, right place." Although some plants are highly adaptable to a variety of conditions, others have more exacting needs. As a rule, it's best to group plants with similar light and moisture requirements and site them in the area of your garden that best accommodates these needs. For example, placing plants with high water needs in low-lying spots where water naturally collects and also close to your water source (as long as overall soil drainage is adequate for those plants). Consider including plants that are native to your region; they are adapted to your conditions, and they'll support your local insect, bird, and wildlife populations.

Learn more about native plants with this KidsGardening resource:

- [The Role of Native Plants and Pollinators in Biodiversity](#)

Mulches

A layer of organic mulch, such as bark chips or pine straw, keeps soil cool, conserves moisture, and helps keep weeds at bay. Plus, as the mulch breaks down, it adds nutrients and organic matter to the soil, supporting the soil ecosystem.

Learn more about mulching with this KidsGardening resource:

- [Garden Maintenance: Weeding, Mulching, and Fertilizing](#)

Turf Alternatives

Most lawn grasses require frequent watering to stay green and lush, along with regular mowing. Xeriscaping invites us to look at lawn areas and consider alternatives, such as wildflowers. Many youth and school gardens are surrounded by an expanse of lawn that is maintained by the municipality or a landscaping company. If that's the case with your garden, consider proposing less thirsty alternatives.

Maintenance

Although the initial costs for installing a xeriscape garden, which might include extensive drip irrigation and other water-wise fixtures, might seem high, these costs will likely be offset by lower water bills and less time spent maintaining the garden.

Learn more about mulching with this KidsGardening resource:

- [Maintaining a School Garden in Summer](#)

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