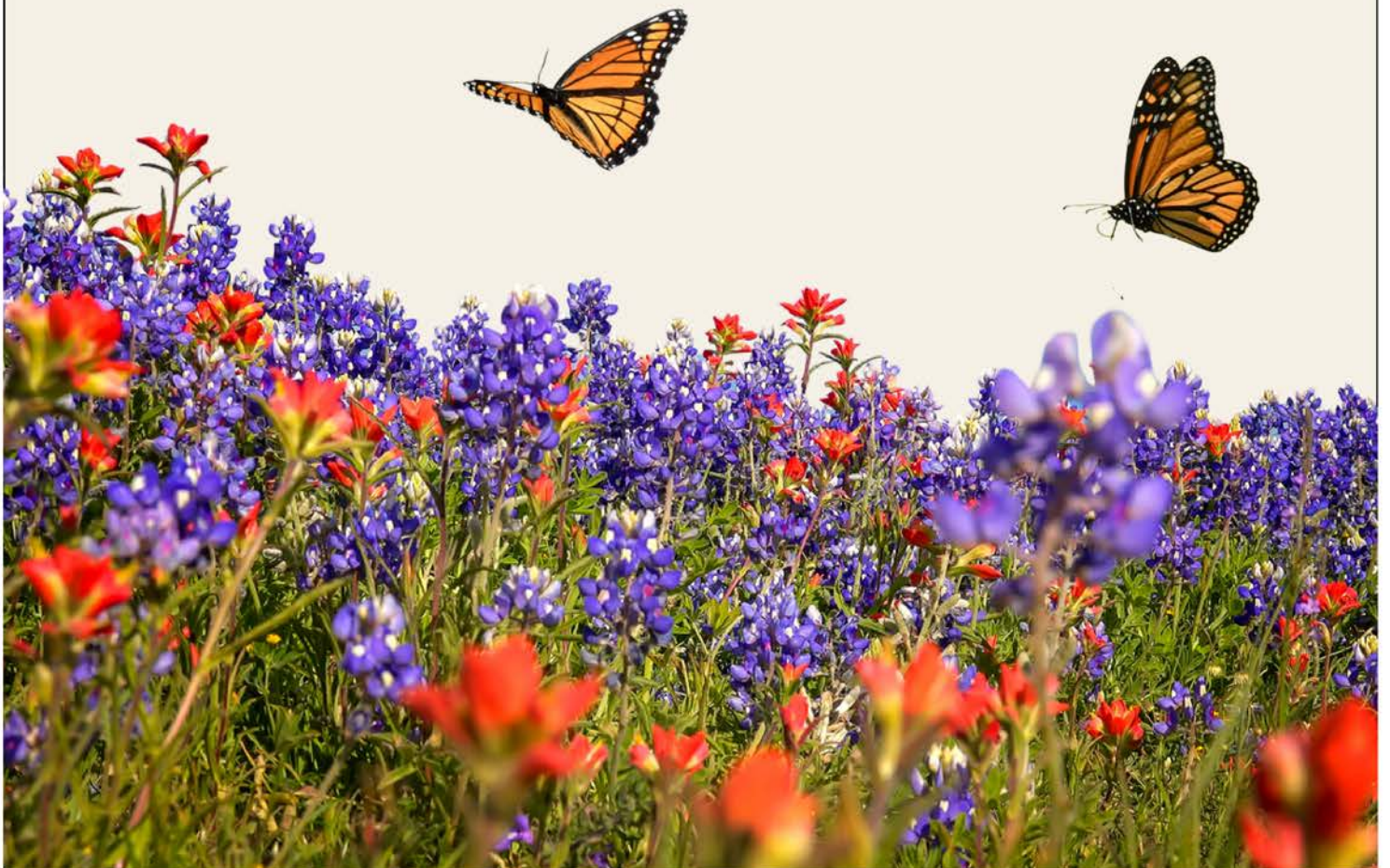


SUSTAINABLE GARDENING WITH KIDS

Activity Guide



ABOUT THIS GUIDE

At High Country Gardens and KidsGardening, we're committed to helping people create sustainable, wildlife-friendly, climate-friendly landscapes and green spaces. Every time we transform a lawn, playground, or empty lot into a species-rich haven for plants and animals, we're nurturing a healthy ecosystem and helping protect the natural resources of our planet. When we get kids involved in the planning, planting, and care of sustainable gardens, we empower them to take action and make positive contributions to their communities.

We teach them problem-solving skills, build their resilience, and reinforce their feelings of agency. We also give them a much-needed sense of control, which is especially important in this age of increasing climate anxiety. Together, one sustainable garden at a time, we can — and are! — making a difference in the health of the planet.



ABOUT HIGH COUNTRY GARDENS

Plants play a vital role in this interconnected ecosystem that binds us all together. But much more than gardening, sustainable gardening has a critical impact on our overall environment. At [High Country Gardens](#), our allegiance to nature and sustainable gardening remains unyielding. It's why we're here. But we can't do it alone. It starts with you. We believe every gardener, every yard, every plant can make a difference. We believe the natural world needs champions now more than ever. Future generations deserve to inherit the same gift we were given -- an environment that is sustainable, beautiful, and resilient. Together we can make a difference, one garden at a time.



ABOUT KIDSGARDENING

For 40 years, KidsGardening has led the youth gardening movement by creating opportunities for kids to play, learn, and grow through gardening. The national nonprofit provides grant funding, inspiration, community connections, and original educational resources to reach more than 3.8 million kids each year. Learn more at [KidsGardening.org](#).



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WHAT IS SUSTAINABLE GARDENING?

Sustainable gardening is the practice of creating beautiful and bountiful gardens by choosing plants and employing techniques that support biodiversity, preserve natural resources, and make as little negative impact on the Earth as possible. Sustainable gardening involves:

- Including a wide array of plants adapted to your region and climate
- Building and maintaining healthy soils
- Supporting native species
- Providing a haven for pollinators
- Conserving water and other resources
- Avoiding the introduction of pollutants, toxins, and invasive species
- Minimizing waste

Sustainable gardening deepens kids' understanding of the natural world, encourages environmental stewardship, and fosters the next generation of leaders. And it starts right at home, in our landscapes, schoolyards, and communities!



WHY SUSTAINABLE GARDENING IS IMPORTANT

Since the dawn of civilization, humans have altered the natural world to meet their needs for food, water, and shelter. As the human population continues to grow, so does our impact on the natural world. These impacts include habitat loss for wildlife, dramatic declines in insect and pollinator populations, soil erosion, pollution of water, soil, and air, and water scarcity. In addition, recent years have brought increases in severe and extreme weather, resulting in droughts, floods, wildfires, and other natural disasters around the world. As a consequence of climate change, these disasters have brought home the need for a change in the way humans interact with the natural world.

Sustainable gardening is one way we can all contribute to the well-being of the planet and play a vital role in supporting the interconnected ecosystem that connects all life on Earth. The more sustainable gardens we create – from small patio plantings to extensive in-ground gardens – the larger and more interconnected the network of natural havens for the myriad species that call our planet home. Creating beautiful, life-filled gardens is a gift to nature and to ourselves!

GETTING STARTED WITH SUSTAINABLE GARDENING

When we transform high-maintenance lawns and landscapes into sustainable gardens, we create oases where plants thrive, pollinators are a-buzz, and beneficial insects keep pests in check. Every garden makes a difference, no matter the size. When considering locations, think outside the box! Your stoop, an unused parking area, a reclaimed lot – anywhere you plant your sustainable garden, you contribute to this growing network of natural beauty and habitat.

CHOOSING PLANTS WITH A PURPOSE

Planning and plant selection are ideal opportunities to get kids involved. Invite them to ponder: How can our gardens work in harmony with the natural world? Get them engaged by having them research your region's native species, make wish lists, and sketch out garden beds. Guide their efforts with the following pillars for choosing plants with a purpose:

Select Waterwise Plants. Conserving water at our homes and schools is one of the most important ways we can contribute to a healthy ecosystem. Sustainable gardens use far less water than thirsty lawns, and they'll also be more likely to thrive if watering restrictions reduce your ability to irrigate. Choose plants adapted to your climate, soil conditions, and sunlight levels, too. In areas of the country prone to drought, xeriscaping techniques, such as planting native, drought-tolerant plants, are especially important. Learn more: [Xeriscaping](#)

Create Habitats. Birds, beneficial insects, and other garden denizens require food and shelter. By incorporating a wide variety of plants in your garden, including trees, shrubs, ornamental grasses, perennials, and annuals, you create a welcoming habitat for an astonishing array of nature's creatures. In turn, your flowers get pollinated, songbirds fill the air with their tunes, and pests are kept in check. Learn more: [Planting Habitat for Songbirds](#)



Provide Natural Nectar. The opportunity to observe native bees, honey bees, butterflies, moths, and hummingbirds is one of the most rewarding experiences of sustainable gardening for kids and adults alike. By filling your yard with nectar-rich flowers, you'll help restore pollinator populations that have been hurt by habitat loss and pesticide usage. Incorporate a wide variety of nectar plants that bloom throughout the growing season so pollinators have a continuous food supply. Native plants are essential for supporting native pollinators and other wildlife, though many non-native naturalized and introduced plants can have a place in the healthy ecosystem of a sustainable garden as well. (see sidebar). Learn more: [Natural Nectar for Pollinators](#)

Promote Watershed and Soil Health. Healthy soil is alive! It contains an underground ecosystem teeming with organisms in a complex web that recycles nutrients and provides them to plants. Healthy soil also absorbs and holds water, which is increasingly important as the planet experiences a rise in the frequency and intensity of droughts and floods.

Carefully managing water in a sustainable garden not only helps plants thrive but also plays a role in watershed health. Every patch of land is part of a watershed, defined as an area of land that drains to a shared waterway. For example, water from your garden might make its way to wetlands or a creek, and then to a river or lake, and ultimately out to the vast ocean. And because that water affects all the habitats along the way, it's vital that the water is clean and free of pollutants. When healthy soil absorbs water, it is drawn down through the layers, becoming naturally filtered and purified. Poor soil doesn't provide this cleansing, and if compacted, water may run off, carrying pollutants with it. When we take action to promote soil health, such as adding organic matter, minimizing tilling and other disturbances, and avoiding pesticide use, we are having a positive effect on the health of the planet.

WHAT ARE NATIVE PLANTS?

A native plant is commonly defined as one that exists in the region in which it evolved. In contrast, non-native species are those that have been introduced into an area by people. The native region of some plants is confined to a small area, while for others, it can span multiple states and even countries!

Because native plants co-evolved with other organisms, notably pollinators, it's important to include them in sustainable gardens. Many non-native plants also provide abundant benefits. Often called naturalized plants, some non-native species adapt and harmonize in a way that is beneficial to their new ecosystem. However, non-native species that try to outcompete native vegetation should be avoided.



PLANT A POLLINATOR GARDEN

Bees, butterflies, beetles, bats, and birds...these are just a few of the countless pollinators that help plants make their fruit and seeds by transporting pollen from flower to flower. Pollinators play a critical role in every ecosystem as well as in agriculture. However, their populations are in sharp decline for many reasons, including habitat loss, pesticide use, and climate change. Each of us can play a role in helping their populations to rebound. Plant a pollinator garden, and you'll provide the food, water, and shelter these beloved—and critically important—creatures need to thrive. In addition, pollinator gardens offer beautiful, nectar-rich blooms and a bustle of activity for kids of all ages to enjoy.



SELECTING THE SITE

- **Type of garden.** Decide what type of setup suits your space. A pollinator garden can be planted in containers, raised beds, or in-ground beds. Dream big, but start small; you can always increase the size later.
- **Light levels.** Most pollinator garden plants prefer full sun to part sun. However, if your only available space is in the shade, you can choose from of shade-tolerant flowers.
- **Soil moisture.** The ideal soil is moist yet well-drained. Check the site after a rainstorm. Is there standing water after a few hours or a day? This indicates poorly drained soil; consider [planting a rain garden](#) instead. Dry soil is also challenging for most plants. Choose drought-tolerant plants, knowing that all plants will need supplemental water until they get established. Note that most soils can be improved, but it's helpful to start out with the best soil possible.





SELECTING PLANTS

Choose a variety of species that flower throughout the growing season so pollinators have a continuous source of food. A mixture of annual, perennial, and woody plants will offer an assortment of blooms and shelter. Remember that many insect pollinators need both flowers as nectar sources for adults and specific leafy “host plants” as food for larval stages. (Research the pollinators in your region to identify their necessary host plants.) If space allows, place each type of plant in a group of three or more. Planting in multiples will grab the attention of pollinator passers-by and create visually appealing swaths of color.

Plant suggestions:

- **Aromatic herbs**, such as catnip, cilantro (coriander), lavender, mint, parsley
- **Annuals**, such as calendula, California Poppy, cosmos, Drummond's phlox, marigold, nasturtium, sunflowers, Red poppy, zinnia
- **Perennials**, such as bee balm, black-eyed Susan, coneflower, coreopsis, iris, lobelia, phlox, salvia, Shasta daisy, lavender, Agastache or hyssop, milkweed or butterfly weed, aster
- **Woody plants**, such as crabapple, lilac, viburnum, currant (ribes), elderberry, sumac (rhus), mock orange (philadelphus)
- **Ornamental grasses**, such as blue fescue, blue grama grass, little bluestem, switchgrass, muhly grass, sedge (Ornamental grasses are important overwintering sites for many insect pollinators.)

Pre-planned gardens. Pre-planned gardens are an easy way to get started! Experienced horticulturists have chosen appropriate plants and created a planting plan to ensure proper placement and spacing.

High Country Gardens has two pre-planned pollinator gardens:

- [Butterfly Paradise Pre-Planned Cottage Garden](#)
- [Pollinator Paradise Pre-Planned Garden](#)



TIPS

- Diverse plantings are less likely to have severe pest problems and are more likely to attract pest insects' natural enemies, including predatory insects and birds. If certain plants are continually plagued with pests, replace them with less susceptible species or varieties.
- Do not use pesticides and herbicides in or around your pollinator garden. Even organic pesticides derived from plants and microbes can be harmful to pollinators as well as pests. Herbicides may wipe out key plants (weeds) that are important food plants for pollinators.





Fun Garden Extras

Pollinator water station — Pollinators need water, too. Add a small [water feature](#) to your garden where they can quench their thirst.

Seating areas — Pollinators are fun to watch! Encourage observation by providing comfortable benches and other places for kids to enjoy the view.

Pollinator identification guide — Purchase, print, or make your own laminated guide depicting common pollinators in your area, and then leave it in the garden for kids to use as a quick reference.



POLLINATOR GARDEN ACTIVITIES

- **Keep a pollinator journal.** Buy or make a journal to record pollinator observations. When kids take time to track these garden helpers, they will be amazed at the variety of pollinators and how busy they are in the garden.
- **Host a pollinator scavenger hunt.** Make a list of common pollinators in your garden space and engage kids in a scavenger hunt. Look high and low to see who can uncover the most pollinators. Remind kids not to observe but not disturb the pollinators and other garden denizens.
- **Create pollinator seed balls.** Share your pollinator garden love! Make seed balls for friends and neighbors using compost and clay. Every patch of pollinator-friendly plants, no matter how small, nurtures these important creatures. Collectively, we can create ever-growing pollinator pathways rich with food and shelter.
- **Plan a pollinator celebration.** Approximately one out of every three mouthfuls of food we eat depends on a pollinator! Learn which food crops rely on pollinators and then plan a meal featuring the harvest from our hard-working friends.
- **Make a pollinator hotel.** Some pollinators, like solitary bees, build protected homes in hollow stems and natural holes in rotting tree stumps. Gardeners can recreate similar spaces using natural materials like pieces of bamboo, sticks, and leaf debris.

Related Children's Books:

The Thing About Bees: A Love Letter by Shabazz Larkin

The Garden Next Door by Collin Pine and Tiffany Everett

Bea's Bees by Katherine Pryor and Ellie Peterson

For More Information:

- [Planning a Pollinator Garden](#)
- [Plant a Butterfly Garden](#)
- [Natural Nectar for Hummingbirds and Pollinators in Your Waterwise Landscape](#)



PLANT A BIRD GARDEN

Put out the welcome mat, and birds will not only grace your sustainable garden with their beautiful melodies, they will also help with insect control, pollination, and seed distribution. The populations of many songbirds are in decline, partly due to habitat loss. The good news is that we can help! Include bird-friendly plants and you'll provide food, shelter, and a welcoming habitat – and give your young gardeners the opportunities to enjoy, identify, and track these lively garden inhabitants.

SELECTING THE SITE

- **Type of garden.** You can plant your bird-friendly garden in containers, raised beds, or in-ground beds. Dream big, but start small; you can always increase the size later.
- **Light levels.** Most plants that attract birds prefer full sun to part sun. However, if your only available space is in shade, you can choose from a more limited palette of shade-tolerant flowers.
- **Soil moisture.** The ideal soil for your bird garden is moist yet well-drained. Soil that is too wet or too dry can be challenging for many plants. Fortunately, there are loads of bird-friendly, drought-tolerant flowers and ornamental grasses that offer abundant seeds and sheltering habitats.

SELECTING PLANTS

A bird-friendly garden will provide food (berries, seeds, and insects), shelter (nesting material and protected locations), and, ideally, water. Because plants and birds have co-evolved in an ecosystem, native plants are good choices for attracting native, local bird species. However, many non-native plants can also offer abundant benefits. Keep in mind that some birds take up residence in your region for all or part of the year, while others, such as hummingbirds, pass through during their migration. Offering a wide array of food and shelter plants throughout the year will support both resident and migratory species.



Plant suggestions:

- **Woody plants** of varying shapes and sizes, such as beautyberry, crabapple, flowering dogwood, viburnum, elderberry
- **Perennials** that offer nectar and seeds, such as black-eyed Susan, coneflower, coreopsis, Joe-Pye weed, sedum
- **Annuals** that produce abundant blooms and seeds over a long season, such as cosmos, millet, sunflowers, tithonia
- **Ornamental grasses** that offer shelter and seeds, such as blue fescue, blue grama grass, purple love grass
- **Attract hummingbirds** with tube-shaped flowers in hues of bright red and orange, such as bee balm, butterfly bush, cardinal flower, salvia, shrimp plant, agastache or hyssop, and trumpet creeper.

Pre-planned gardens. Pre-planned gardens are an easy way to get started! Experienced horticulturists have chosen appropriate plants and created a planting plan to ensure proper placement and spacing.

High Country Gardens has two pre-planned bird gardens:

- [Habitat Hero Birdwatcher Pre-Planned Garden](#)
- [Hummingbird Container Garden](#)



TIPS

- Birds need protection from harsh weather, as well as places to hide from predators. Choose plants with a variety of characteristics – trees and shrubs for height, evergreens for winter cover, and grasses for ground-dwelling birds.
- A brush pile in the corner of your yard is an inviting place for birds to find shelter; top it off with evergreen limbs to help shed water. If neighbors complain that it's a bit untidy, inform them of the purpose of your brush pile, and perhaps they'll create one too!
- If it's safe to do so, leave dead limbs and even whole trees for cavity-nesting birds and for birds that eat insects that tunnel under bark.
- Leave some perennials and grasses to grow tall and form seed heads. As they bend under the weight of frost or snow, they create perfect hiding places for birds to rest. Wait until spring to cut them back.
- Thorny plants, such as firethorn and wild roses, provide excellent protection from predators.
- Create lots of "edge" habitats – where lawn meets shrubs, or flower gardens meet woods – to provide rich areas of habitat for feeding, shelter, and nesting.
- Have a year-round source of fresh water for visiting birds. In cold climates, a birdbath heater ensures a steady supply when natural water sources are frozen.



Fun Garden Extras

Bird Feeders – Available in all shapes and sizes, DIY and prefabricated, bird feeders attract feathered friends to your garden.

Bird Baths – A decorative bird bath supplies water and can also serve garden focal point. Clean and replace water frequently to prevent your bath from becoming a breeding ground for mosquitos.

Bird Houses – Some bird species, like purple martins, bluebirds, wrens, and sparrows, will take advantage of bird houses to build their nests. Research common birds in your area and then build or purchase birdhouses that will offer [attractive lodging for them](#), following recommendations for the site, height, and spacing of them.

Nesting Materials – Place short (6” long or less) strands of natural fibers such as cotton, hemp, or wool in the branches of trees and shrubs. Later in the season, you may find nests with some of these fibers woven in. Avoid synthetic materials and longer strands.



BIRD GARDEN ACTIVITIES

- **Decorate for the Holidays.** [Homemade bird feeders](#) are a fun addition to your bird-friendly garden year-round but are especially helpful during winter and early spring when food sources are scarcer. Because bird species vary in their preferences for foods and feeder styles, include several types in your sustainable garden.
- **Participate in the Great Backyard Bird Count.** Every February, the [Great Backyard Bird Count](#) invites citizen scientists across North America to watch for birds and report what they find. This event not only promotes awareness and education, it also gathers data to help protect our bird friends. [Winter is a fun time for bird observation](#) since bare branches offer good viewing opportunities.
- **Identify bird songs and calls.** Encourage kids to use the [Merlin Bird ID](#) App by The Cornell Ornithology Lab to identify the birds in your garden.
- **Make a bird bath.** Creatively stack unused clay pots and saucers to make a homemade birth bath. Let your young gardeners decorate with nontoxic paint and accessories, and let their creativity soar.
- **Track the hummingbirds' Journey.** Each year, these cute little birds travel thousands of miles to follow the temperatures and food supply they need. Young gardeners can participate in tracking their path through the [Journey North Project](#).

Related Children's Books:

A Nest is Noisy by Dianna Hutts Aston and Sylvia Long
Backyard Explorer: Bird Watch: What Will You Find? By the Editors of Storey Publishing
Mama Built a Little Nest by Jennifer Ward
Have You Heard the Nesting Bird? By Rita Gray

For More Information:

- [Hooked on Hummingbirds](#)
- [Birdscaping to Feed and Shelter Birds](#)
- [The Winter Bird-Friendly Schoolyard](#)
- [How to Plant a Garden That Helps Birds](#)

PLANT A WATERWISE GARDEN

It's easy to take water for granted, especially in regions with abundant rainfall. However, urbanization, agriculture, and climate change are impacting water quality around the world, and extreme drought and flooding events are becoming more commonplace. Water is a precious resource that must be conserved and protected. Fortunately, we can all pitch in by using water efficiently and responsibly, including in our gardens.

In contrast to thirsty lawns, sustainable, waterwise gardens reduce the need for irrigation beyond what nature provides. Research, planning, and planting for water conservation provide kids with abundant opportunities for learning about plant adaptations, the water cycle, soils, and ecosystems. Plus, waterwise gardening also reduces watering chores!



SELECTING THE SITE

- **Type of garden.** Although residents of arid regions may be most familiar with waterwise gardening, the techniques can be applied to any locale. Waterwise gardens can be grown in containers, raised beds, and in-ground beds. Note that plants growing in containers and raised beds tend to require more frequent irrigation than those in in-ground beds. If growing in containers, choose non-porous materials (such as plastic and glazed pottery) that conserve soil moisture rather than porous ones (like wood and terra cotta) that allow water to seep through and evaporate.
- **Light levels.** Waterwise gardens can be planted in all light levels, from full sun to shade. In sunny, dry climates, a location with some afternoon shade can help reduce irrigation needs..
- **Soil moisture.** Most plants prefer soil that holds moisture yet drains well. Soils in a waterwise garden should be amended with compost and other organic matter annually to improve water infiltration and retention. A layer of organic mulch, such as bark chips or pine straw, conserves moisture, keeps soil cool, 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.





SELECTING PLANTS

Focus on plants that are native to your region or are otherwise well-adapted to your environmental conditions. Look for plants described as drought-tolerant; once established, these plants can tolerate short dry spells. Plants native to prairies are often good choices. Gardens in hot, sunny climates benefit from carefully sited trees, shrubs, and/or structures like arbors that provide shade during the hottest parts of the day. Most states have state-wide and local [native plant societies](#) that offer lists of recommended plants.

Plant suggestions:

- **Woody plants**, such as cotoneaster, ninebark, spirea, sweetgum
- **Perennials**, such as agastache (hummingbird mint), black-eyed Susan, catmint (nepeta), coneflower, coreopsis, dianthus, salvia, sedum, yarrow, lavender, butterfly weed
- **Annuals**, such as African daisy, cosmos, globe amaranth, portulaca, sage, tithonia, vinca, zinnia, California poppy
- **Herbs**, such as rosemary, sage, thyme
- **Ornamental grasses**, such as blue fescue, blue grama, pink muhly

Pre-planned gardens. Pre-planned gardens are an easy way to get started! Experienced horticulturists have chosen appropriate plants and created a planting plan to ensure proper placement and spacing.

High Country Gardens has two pre-planned waterwise gardens:

- [Jumbo Waterwise Pre-Planned Garden](#)
- [Jumbo Waterwise Pre-Planned Garden for The West Coast](#)



TIPS

- Even the most drought-tolerant plants may need supplemental watering until they get established and during extended dry spells.
- Choose water delivery systems, such as soaker hoses and drip irrigation, that apply water slowly, directly to the soil. These allow moisture to be absorbed rather than running off.
- Avoid frequent shallow watering, which encourages shallow roots that are susceptible to drying out. Instead, water deeply to encourage extensive, drought-tolerant root systems that reach deep into the soil.
- Avoid overhead watering, such as with sprinklers, because much of the water evaporates before it reaches plant roots. In addition, wetting foliage can lead to disease problems.





Fun Garden Extras

Install a rain barrel. Rain barrels are designed to capture rainwater from roof surfaces so it can be used to water plants. Prefabricated and DIY models are available. Remember, the water in a rain barrel is non-potable. It should be used in ornamental (non-edible) gardens only, and measures should be taken to prevent pests, such as mosquitoes. (Note that some states have [regulations regarding rainwater harvesting](#).)

Add a rain gauge. Tracking how much rainwater falls and adjusting supplemental watering accordingly is an important lesson for young gardeners. You can make your own or find a fun prefabricated one to add whimsy to your space.

Build a sun sail shade. Created from poles and heavy-duty fabric, sun sail shades can be placed to provide a little extra shade in your garden during the hottest times of the day and year. This can be helpful for your plants and your young gardeners.



WATERWISE GARDEN ACTIVITIES

- **Make succulent dish gardens.** [Succulent plants](#) are adapted to thrive in arid climates, making them ideal for shallow dish gardens. Many are easy to propagate from leaf and root cuttings, too. Help your young gardeners [make new plants from existing plants](#), and they will enjoy taking care of their new plant “babies.”
- **Make Earth Day Wildflower Seed Paper.** Spread the word about the benefits of planting wildflowers and other native plant species. Have kids create handmade [Earth-shaped “plantable” paper](#) that is embedded with seeds to give to friends and family.
- **Make water conservation advocating stones.** Paint stepping stones and/or [large rocks](#) with messages about the importance of saving water to bring attention to your water-wise garden and encourage others to plant one too!
- **Use reclaimed water for the garden.** Invite kids to brainstorm ways to use reclaimed water, such as water that is leftover in a water bottle or water that collects in saucers under planters. To ensure safety, use reclaimed water only in gardens planted with non-edible plants.
- **Track the weather through the seasons.** Encourage kids to keep track of rainfall and temperature in their [garden journals](#) and make observations about the impact on their plants and other life in the garden.

Related Children’s Books:

Up in the Garden and Down in the Dirt by Kate Messner
All the Water in the World by George Ella Lyon
Why Should I Save Water? By Jen Green
Build a Rain Barrel by Sally McGraw

For More Information:

- [18 Water-Saving Gardening Tips for Drought](#)
- [Conserve Water with Xeriscaping](#)
- [Succulents](#)

PLANT A RAIN GARDEN

If you have a low-lying spot in your garden that stays soggy after a rain, consider planting a rain garden. Filled with a variety of moisture-loving plants, rain gardens are not only a beautiful solution for wet spots, they can also be part of your sustainable landscape. Rain gardens allow water to collect and slowly infiltrate the soil, rather than draining off into storm drains and sewers. Water run-off from lawns and landscapes often carries with it pesticides, fertilizers, and/or other contaminants, and it's a major source of pollution in our waterways. In contrast, when water is absorbed, the soil acts as a filter to remove pollutants. Rain gardens offer abundant opportunities for learning about water quality, habitat creation, and the impact of our actions on protecting our natural resources.

SELECTING THE SITE

- **Type of garden.** In-ground gardens are the natural choice for maximizing the area's water-capturing potential. Choose a spot that is naturally low-lying, where water drains from surrounding slopes.
- **Light levels.** Most rain garden plants prefer full sun to part sun. If your only available space is in shade, it's still possible to have a rain garden, but you'll have a more limited plant palette.
- **Soil moisture.** In contrast to ponds where there's standing water at all times, rain gardens capture and then slowly absorb water. Most rain garden plants tolerate only moderate periods of saturated soil, so ideally, the water should be absorbed within 2 to 4 days after a rainstorm. Note that although it's possible to remove existing soil to create a low-lying area, this greatly disrupts the soil ecosystem.

SELECTING PLANTS

Rain garden plants can tolerate extended periods of saturated soil that would cause root damage in other plants. Rain gardens are typically planted with a mix of shrubs and perennials to minimize soil disturbance, promote deep root systems, and minimize soil compaction due to planting and maintenance chores. (Annual plants tend to need frequent fertilizing and other maintenance; use them as accents along the perimeter of your rain garden, if at all.) All plants should be adapted to moist-to-wet soil conditions; be sure to include some native plants to create a welcoming habitat for native birds and wildlife. Check with your state and local native plant societies for recommendations, and be sure to avoid invasive species.



Plant suggestions:

- **Shrubs**, such as aronia, buttonbush, meadowsweet, red osier dogwood, viburnum, winterberry
- **Perennials**, such as blue flag iris, milkweed, lobelia (including cardinal flower and great blue lobelia), ferns, gayfeather, Joe Pye weed, rushes, sedges, sweet flag, turtlehead, aster

Pre-planned gardens. Pre-planned gardens are an easy way to get started! Experienced horticulturists have chosen appropriate plants and created a planting plan to ensure proper placement and spacing.

High Country Gardens' Pre-Planned Rain Garden:

- [Watershed Wise Pre-Planned Garden](#)



TIPS

- Rain gardens should be located at least 10 feet away from buildings to prevent water damage to foundations, and they should not be planted over septic systems or leach fields.
- Avoid planting your rain garden adjacent to pavement and other impermeable surfaces, where fast-draining water can erode soil and carry traces of toxins such as motor oil.
- Ideally, you'll disturb the soil as little as possible when creating your rain garden. If needed, you can modify the area to shape it like a shallow saucer with gradually sloping sides draining to a relatively flat bottom. This allows water to seep in slowly over a wide area.
- Choose plants carefully based on the location. Plants at the bottom will need to tolerate wetter soils than those on the sloping sides.
- Apply organic mulch, such as shredded bark, to protect the soil from erosion and maintain even soil moisture. Spread the mulch during times when the soil is not saturated to prevent soil compaction.
- Plant a grass buffer strip around the garden to slow the speed at which water enters the garden; this helps minimize soil erosion.





Fun Garden Extras

Install a rain gauge. Tracking rainfall offers learning opportunities for young gardeners and helps you determine if extended dry conditions indicate that plants may need supplemental watering. Make your own, or find a fun prefabricated one.

Include pollinator plants. Select plants that attract pollinators to invite these helpful and fun-to-watch garden visitors.

Build a bridge or path. Consider building a path — or even a bridge! — in your rain garden so kids can explore the interior space without compacting the soil.



RAIN GARDEN ACTIVITIES

- **Make a soil ribbon.** Prior to planting, have kids [test the composition of the soil](#) by making a soil ribbon. Take a small clump of soil and add water until it makes a moist ball, then rub the soil together between your hands. If the soil sticks together and makes a long ribbon, it contains a lot of clay. This indicates it will not drain well and may not be the best spot for your rain garden. On the other hand, if the ball of soil crumbles in your hand, it has a lot of sand, indicating it will drain well and is ideal for a rain garden. If it is somewhere in between, it likely contains a mix of sand, silt, and clay (called a loam), and it may also be a good locale, as long as the area drains in 2 to 4 days after a rainstorm.
- **Test soil drainage.** Another way to test the drainage of different potential rain garden sites is with a dig test. Dig a hole 6" wide and 18" deep in each location you are considering. Fill each hole with water and use a ruler to measure the water depth. Check the water depth every hour and record the results. If all the water drains within a few hours to a day, the site has excellent drainage and is ideal for your rain garden. If the water drains within 1-4 days, then it is an acceptable site for a rain garden. If the water has not drained after 4 days, it stays too wet for most plants; choose a different location.
- **Build a Terrarium:** Teach kids about the water cycle—evaporation, condensation, and precipitation—by [building a terrarium](#).
- **Demonstrate the importance of roots in capturing rainwater and preventing erosion.** Fill multiple shallow [pans of soil](#) and plant some of them with fast-growing seeds. Once the plants are established, use a watering can to simulate rainfall over both planted and unplanted pans and compare what happens to the soil.
- **Research your watershed.** When water hits the Earth, it flows to lower elevations and eventually collects in creeks, then streams, then rivers, and finally into an ocean. Every patch of land is part of a watershed, defined as an area of land that drains to a common waterway. Find out what watershed you live in using the EPA's [How's My Waterway](#) app and learn about any challenges your watershed is experiencing.

Related Children's Books:

UA Place for Rain by Michelle Schaub

Let's Build a Rain Garden by Sally Wenzel

For More Information:

- [Rain Gardens](#)
- [Watershed Wise Gardening](#)