



Water Stories: Transforming Your School Garden with Water Features

Presented By

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Outdoor Learning Environment



Metamorphosis: Nature Transforming Lives Transforming Nature

Sharon Chastain, Presenter
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Native Texas Water and Bog Plants

Ladyfern (*Athyrium filix-femina* var. *asplenoides*)- 2-4 ft; bogs, swamps, stream banks; sand, loam, clay; acid or calcareous; poor drainage okay; dormant in winter; shade, part shade; broad range, Piney Woods, Coastal Prairies, and Post Oak Savannah

Buttonbush (*Cephalanthus occidentalis*) – shrub, usually under 10 ft; swamps, ponds, margins of streams; sand, loam, limestone; poor drainage okay; 0-12 inches underwater; fragrant blooms that attract bees and butterflies; deciduous; fruit attractive to waterfowl; part shade, full sun; range throughout Texas

Crinum Lily (*Crinum americanum*)- 1-3 ft.; sand, loam, clay; acid or calcareous; poor drainage okay; 0-6 inches underwater; almost evergreen; white blooms Jun to November; shade to full sun; southeast and coastal Texas

Horsetail (*Equisetum hyemale*)- 1-3 feet; sand, loam; clay, limestone; poor drainage okay; 0-6 inches underwater; evergreen; colonizes by rhizomes; throughout Texas, mostly Blacklands and Edwards Plateau

Yellow Water Lotus (*Nelumbo lutea*)- 1-1 ½ ft. above water; 4-7 inches under water; dormant in winter; full sun; yellow blooms in summer; colonizes by rhizomes; full sun; Eastern third of Texas

White Water Lily (*Nymphaea odorata*) large flowers 3-6 inches above water; dormant in winter; 6-18 inches under water; fragrant white blooms; colonizes by rhizomes; full sun; Southeast Texas

Floating Heart (*Nymphaea aquatica*)- small floating plant with small white flowers; dormant in winter; part shade, full sun; East Texas

Tuckahoe, Arrow Arum (*Peltandra virginica*)- 1-2 feet; rich mud; 0-5 inches underwater; shade, dappled shade; East Texas; dormant in winter

Pickerelweed (*Pontederia cordata*)- 2-3 feet; lavender blue summer bloom; mud, 0-12 inches water; part shade, full sun, colonizes by rhizomes; easy to grow; dormant in winter; East Texas

Arrowhead (*Sagittaria lancifolia*) 2-3 feet; mud, 0-12 inches water; part shade, full sun; white blooms spring to fall; dormant in winter; throughout Texas; colonizes by stolons

Lizardtail (*Saururus cernuus*) 1 ½- 3 feet; April to August profuse white blooms; dormant in winter; mud. 0-6 inches water; dormant in winter; shade, dappled shade

Powdery Thalia, Water Canna (*Thalia dealbata*) 6-8 feet; summer-fall purple blooms; mud, 0-12 inches water; part shade, full sun; East and Southeast Texas; dormant in winter

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Narrowleaf Cattail (*Typha augustifolia*) 7 feet; mud; 0-12 inches water; dormant in winter; part sun, full shade; colonizes by rhizomes

Native Plants that Tolerate Moisture and Poor Drainage

Indigobush, False Indigo (*Amorpha fruticosa*) 10 ft; purple blooms in spring; deciduous; Throughout Texas except Valley; sand, loam; acidic or calcareous; poor drainage okay; part shade, full sun

Zig Zag Iris (*Iris brevicaulis*)- 1-2 feet; blooms blue, lavender & white; sand, loam, clay; poor drainage okay; shade, full sun; one of the iris used to hybridize Louisiana iris

Halberd Leaf Hibiscus (*Hibiscus militaris* (*H. laevis*))- 3-8 feet; white or pink flowers in summer; part shade, full sun; dormant in winter; acid or calcareous; poor drainage okay; East and North Central Texas

Cardinal Flower (*Lobelia cardinalis*) 6 inches- 6 feet; red blooms Summer-Fall; throughout Texas; all soils; poor drainage okay

Dwarf Wax Myrtle (*Myrica pusilla*) 2-6 feet; evergreen; sand, loam, clay; poor drainage okay; dappled shade, full sun; colonizes

Palmetto (*Sabal minor*) 3-5 feet; evergreen; East Texas to Edwards plateau; North Texas, sand, loam, clay; poor drainage okay; shade to full sun

Native Grasses for Moist Environment

Gulf Muhly (*Muhlenbergia capillaris*) up to 2 ½ feet; pink blooms in Fall; dormant in winter; part shade, full sun; range is East and Southeast Texas

Indian Grass (*Sorghastrum nutans*) 3-5 feet; fall bloom; dormant in winter; all soils; moist; seasonal poor drainage okay; full sun; range throughout Texas

Switch Grass (*Panicum virgatum*) up to 6 feet; fall bloom, dormant in winter; full, sun; moist; seasonal poor drainage okay; range throughout Texas

Big Bluestem (*Andropogon gerardii*) 3-6 feet; blooms in fall; dormant in winter; all soils; seasonal poor drainage okay range throughout Texas

Bushy Bluestem (*Andropogon glomeratus*) 1-2 feet; fluffy seed head in Fall; dormant in winter; moist areas throughout Texas;

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Resources

Carnivorous Plants of Texas Website

www.carnivorousplantsoftexas.org

Excellent information on Texas bogs and bog plants; source for native pitcher plants

Green Mama's Organic Garden Center

www.greenmamas.com

5324 N. Davis

North Richland Hills, TX

817-514-1336

Aquatic plants and water feature equipment

Lilypons Water Gardens

www.lilypons.com

Aquatic plants and pond equipment

Whiz-Q Stone

www.whiz-q.com

4501 E. Loop 820 S.

Fort Worth 76119

Pond supplies & aquatic plants

Weston Gardens

www.westongardens.com

8101 Anglin Drive

Fort Worth, 76140

Aquatic and bog plants; Texas natives

Mike's Garden Center

Aquatic and bog plants

Archie's Garden Center

Aquatic and bog plants

Redenta's Garden

www.redentas.com

Marginals, natives, native grasses

Lowe's

Pond supplies, aquatic plants in season

SELF-WATERING PLANTER or AQUARIUM

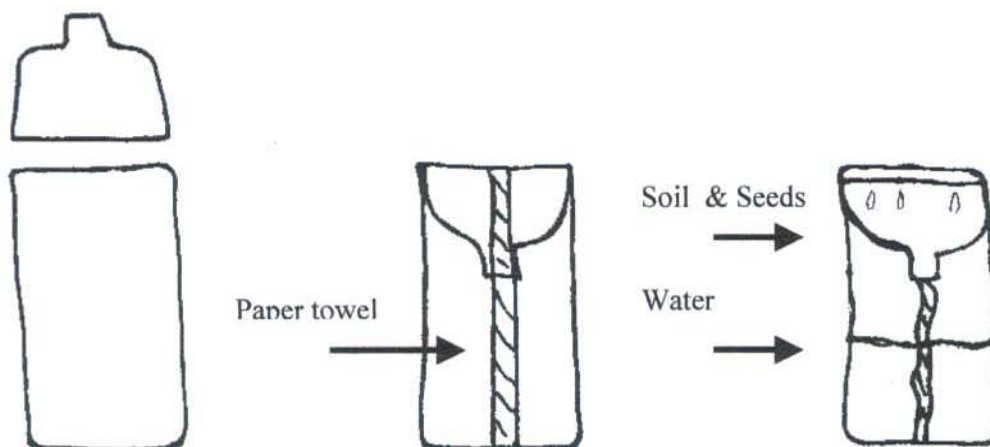
Materials:

- 2-liter clear plastic soda bottle
- 1 sheet of white paper towel
- scissors
- label and marking pen
- potting soil
- seeds
- water

Instructions:

Cut the top off a two-liter bottle (about 11-12 centimeters from the top). Invert the top to make a funnel. Roll the paper towel to make a column and slide the paper towel through the funnel. Fill the bottom part of the bottle about 1/3 full. Fill the funnel with potting soil making sure the paper towel column is covered, but still remains upright. Place the funnel in the bottle. The paper towel wick should be touching the bottom of the bottle. Plant seeds evenly apart and to a depth following the directions on the seed packet. Top-water the soil making sure the seeds are moist. Place near a window or under a grow light. Water when necessary.

For the **aquarium**, just cut the top off and use the bottom.





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Latin Name	Equisetum hyemale
Pronunciation	eh-kweh-SEE-tum Hye-mah-lee
Common Names	Horsetail, Canuela
Usual Height	1-3 feet, can reach 9 feet
Spacing	One is enough; 6-inch pot or larger
Evergreen	
Range	Moist places throughout Texas; most frequent in Blacklands and Edwards Plateau
Soil	Sand, loam, clay; limestone; poor drainage okay; 0-6 inches underwater
Dappled shade, part shade, full sun	
Colonizes by underground runners- very invasive	

During the age of dinosaurs the climate, topography and vegetation of the earth's continents were much different from today. Spore-bearing plants such as ferns, horsetails, club-mosses and whisk ferns were abundant in the forest understory. All of these plant groups produced spores in microscopic cases called sporangia or in cone-like structures (strobili). Though many primitive plants became extinct, many have living representatives that have changed very little from their primordial ancestors. Fossil forms of Horsetail date to as early as 408-360 million years ago.

Horsetail is also called "scouring rush" because the silica-impregnated stems were used to clean pots and pans. Horsetails attract dragonflies; they lay eggs on the stems.

