NUES Teacher Toolbox Kits — www.nucenter.org

NEW RED BUTTE GARDEN EDUCATIONAL KIT

Conserving Water In The Desert ~ BOTANY BIN

"Conserving Water in the Desert," provides information and activities for students to explore the water resources in Utah and the Western United States. In addition, it is the intent of this program to raise awareness about the limited availability of water in our desert climate and to encourage water conservation. The lessons focus on basic water science, the sources and availability of water for human use, some of the issues surrounding human water consumption, the importance of plants in the quality of our water, and how individual citizens can become stewards of this precious resource.

Introduction to Water Essentials: These introductory lessons provide students a foundation in essential water basics. The lessons have literature, DVDs, and links to websites that have visual explanations of the water cycle, basic water experiments, the role of plants in the water cycle, the properties of water, and materials for experiential, interactive learning opportunities.
Lesson One: Water Cycle
Lesson Two: Water's Physical States of Matter
Sources of Our Water: The next lessons explore the various sources of our water, the availability of water for human use, statistics on water consumption, Utah's watersheds, and the role of plants in erosion control, water filtration, and as a part of the ecosystems in and near those areas.
Lesson Three: Sources of Water
Lesson Four: Wetlands
Collection and Use of Water: Lessons on worldwide collection and consumption of water are found in this section. Students will study the impact of mining and bottling of water on ecosystems. They will analyze home usage and learn conservation strategies, such as monitoring indoor water use, changing outdoor watering habits, utilizing thoughtful plant selection, and considering rainwater harvesting and water catchments. The lessons focus on the powerful effects of waterwise landscaping in helping to conserve water. Lesson Eight can be used as a preview or review to a school field class tour at the new Red Butte Water Conservation Garden (scheduled for completion Fall 2016).
Lesson Five: Water Collection Worldwide
Lesson Six: Home Survey Lesson Seven: Bottled Water
Lesson Eight: Harvesting Water
Citizen Science: This lesson will focus on the impact of citizen involvement in monitoring the quality of our watersheds in Utah. Water quality monitoring projects will be offered statewide to students through a partnership with Utah State University: Utah Water Watch. An opportunity for a water quality monitoring activity on Red Butte Creek will also be offered during a scheduled field class experience at the new Red Butte Water Conservation Garden (Fall 2016).
Lesson Nine: Citizen Science
Climate Change: The role of plants cannot be overlooked in stemming or reversing the trend of climate change worldwide. Students will look at the latest research around this issue, and are encouraged to take action by becoming involved in a tree planting effort in their neighborhood or school in a partnership with TreeUtah.
Lesson Ten: Climate Change.