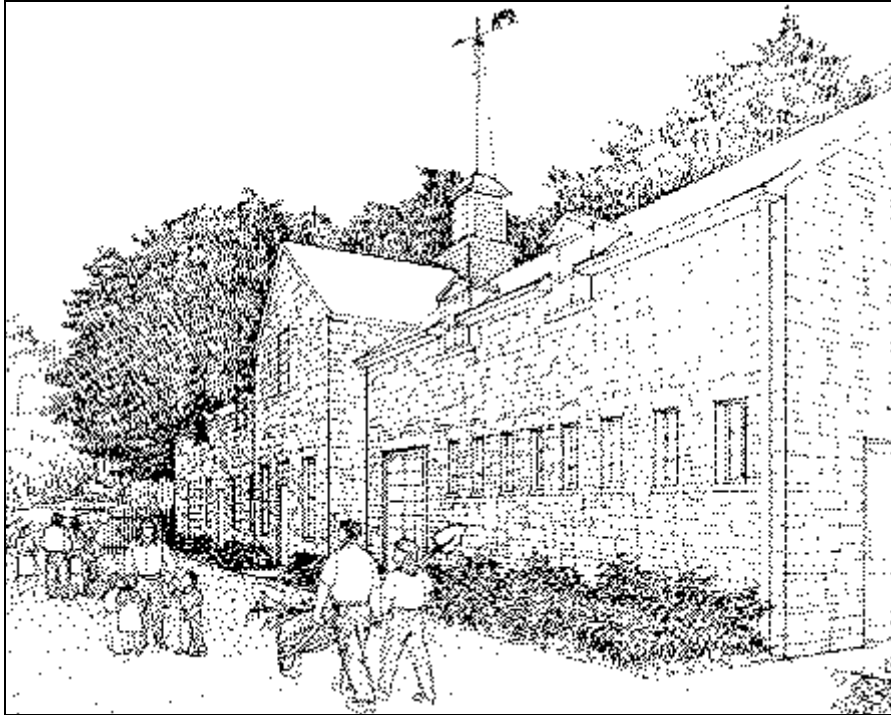


COBBS CREEK COMMUNITY ENVIRONMENTAL
EDUCATION CENTER



WETLANDS
A CURRICULUM GUIDE FOR
NAYLOR'S RUN WETLAND
GRADES 7&8

April 2005
In Partnership with the University of Pennsylvania

FORWARD

This curriculum was designed for use by the Cobbs Creek Community Environmental Education Center (CCCEEC) in Philadelphia, PA. The center was founded in 1991 and is in Cobbs Creek Park in western Philadelphia. The center has access to a manmade wetland, Naylor’s Run Wetland, which is also in Cobbs Creek Park, but across the creek from CCCEEC in Upper Darby. This wetland was created in 2001 as part of the restoration efforts of The Academy of Natural Sciences and the Fairmount Park Commission, and was intended to be fed only by stormwater runoff, therefore reducing pollution and further degradation of the creek. The framework for the curriculum came from George Ambrose, Program Coordinator, Park Management Program for Youth, who also oversaw the development, design and completion of this project.

Cobbs Creek Community Environmental Education Center’s focus is urban environmental education, and their location in Cobbs Creek Park serves as the perfect living classroom. Recent studies have concluded that Cobbs Creek is very impaired, which has had serious impacts on wildlife and habitat. The degradation is a result of heavy development and misuse. The center is located in a low-income, minority neighborhood that uses the park for recreation, as it is one of the few green, public spaces in their community. So, while Naylor’s Run Wetland was made to catch stormwater runoff and to restore wetland habitat, it is also a wonderful environmental education opportunity for under-served urban schoolchildren.

This project could not have been completed without the help of many people. George Ambrose, who was the architect of this curriculum, has also been monitoring Naylor’s Run Wetland since 2001. George’s knowledge of the wetland and the surrounding area is truly amazing; this curriculum could never have been completed without his own field notes and observations. Sally Willig, my advisor at the University of Pennsylvania, was not only an encouraging voice, but is also an expert in wetland science and Southeastern Pennsylvania ecology. I would also like to thank Virginia Tinkler-Moor at Van Pelt Library, Banny Ackerman and Jon Savitch from Radnor Middle School, Kate McMannis and Erika Scarborough from The John Heinz National Wildlife Refuge at Tinicum and Ryan Kuck from the Urban Nutrition Initiative.



HOW TO USE THIS GUIDE

This curriculum is designed to be used by Philadelphia middle school teachers and/or environmental educators from Cobbs Creek Community Environmental Education Center as a supplement to Pennsylvania education standards for Ecology and Environment. The curriculum contains background information so that a teacher with little prior knowledge of wetlands and/or Cobbs Creek and Naylor’s Run Wetland will be able to teach the wetland activities.

The curriculum is divided into four sections. Chapter I offers a background on Cobbs Creek, the Cobbs Creek Community Environmental Education Center and Naylor’s Run Wetland. The purpose of this chapter is to give a brief background of the geography, environmental history, environmental challenges and current restoration efforts in Philadelphia. In this chapter, teachers will learn about Naylor’s Run Wetland, the wetland that this curriculum has been tailored to. This is where teachers will learn about the design and specific plant species that were introduced to the wetland. Take some time to look over this chapter to familiarize yourself with Philadelphia’s environmental history and future as well as Naylor’s Run Wetland.

Following Chapter I are the different course units and their activities. These lessons can be taught sequentially or independently, depending on the time available and each teacher’s goals. Every unit is constructed the same way. Each one has an introduction that provides teachers with the technical information they will need to know for the activities. The last section of the introduction reviews the unit’s activities. Here, teachers will find referenced curricula from which the activities were adapted. Full bibliographic information of these curriculums can be found in Chapter IV, “Additional Resources”. Following the introduction are 1-2 activities and an additional extension activity that teachers can choose to use at the center or when they return to their own schools. The format of the activities does not change - on the left hand side of the first page of every activity is a column that describes the objective, the length of the activity, any materials needed, Pennsylvania education standards, vocabulary, and extensions (suggestions for follow-up activities). They also provide teachers with a background, a step-by-step method of conducting the activity and follow-up questions. Of course, teachers are free to add or substitute any information they would like. In some cases, student activity sheets and additional informational sheets are provided. These may be photocopied for the students.

Chapter III is a glossary that reviews the terms used in this curriculum as well as other important terms used in environmental water issues. Every definition includes its source, which follows in italics. When there is no citation, the given definition was not taken from one source. Full bibliographic information can be found in Chapter IV.

Chapter IV, “Additional Resources”, has three sections: curriculum guides, wetland resources and online resources. These are both resources that were used to create this curriculum and additional resources that teachers may find useful for further wetlands education.



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