Chapter 11
Green Schools as Teaching Tools

Charles F. Carrick
Lee University, USA

Douglas B. Caywood
The Lewis Group Architects, USA

ABSTRACT

This chapter is meant to serve as both a resource and as an aid for K-12 teachers who are interested in incorporating the philosophy and various aspects of the green school into their day-to-day teaching activities. A working definition of green schools and a summary of their benefits are presented as background information for teachers unfamiliar with the movement. Suggested steps for greening schools and classrooms are provided for those who may be interested in advancing the concept in their particular situations. Throughout the chapter, the school is highlighted as a laboratory for practicing conservation. To that end, discrete elements of green design are presented as suggested subject areas. Successful green school programs are identified as an additional resource. Finally, suggested green activities for the classroom are provided for interested instructors.

INTRODUCTION

Many students spend their days in school buildings that are unhealthy and that limit their opportunities to learn (Kats, 2006). This situation is unfair; especially, at a time when one of the foremost questions confronting educators is, “how do we help our children learn more?” The call for accountability is rampant. Resources are being consumed in a wide-ranging manner in an effort to help improve the quality of teaching and to help students become more efficient learners. Unfortunately, one of the points that is frequently overlooked in the public discourse is that students and teachers perform better in green schools (Brown, 2010). The purpose of this chapter is to provide a brief overview of selected aspects of the green school movement as well as to identify resources and teaching strategies for using green schools as teaching tools. This chapter is divided into the following sections: defining green schools and identifying the benefits of using green schools as a teaching tool; suggested steps for greening schools; the school as a laboratory which includes...
the elements of green design as subject areas, successful school programs, and suggested green activities.

DEFINING GREEN SCHOOLS AND IDENTIFYING THEIR INSTRUCTIONAL BENEFITS

Without a doubt, schools can provide a healthy environment not only for students but also for all others who occupy these learning laboratories. By providing a healthier environment; by providing a green school, student performance can improve. A 2008 survey conducted by Turner Construction Company found that more than 70 percent of school systems with green schools reported a drop in student absences as well as improvements in student performance (Havas, 2009). Unfortunately, this point is one that is frequently overlooked by decision makers in our schools (Brown, 2010). Turnovers in the teaching force are fewer when compared to traditional schools. Perhaps, most importantly, there is increased productivity of learning in an improved school environment (Kats, 2006). Additional benefits can accrue if a school system chooses to use the actual school as a living teaching/learning laboratory. Schools that adopt an environmental focus demonstrate better academic performance across the curriculum (Karliner, 2005). Furthermore, environmental education helps build creative thinking and relationship skills, and nurtures leadership qualities (Brown, 2010).

After considering the very loud call for accountability and after considering the benefits of environmentally friendly schools, two questions seem to arise. They are: What is a green school, and why aren’t there more green schools? The first question is relatively easy to answer, but the second is considerably more complicated.

Green schools have good indoor air quality; use natural light; save energy; serve healthy food; create green school yards and teach stewardship (Curwood, 2013). An effective school that is green has successfully integrated the concept into the school day. While this task may seem daunting, with adequate planning it becomes manageable.

Nonetheless, the question that remains is, “Why aren’t there more green schools?” The response that seems to be the most common is “It costs too much.” People who accept this answer seem to fail to take into account the long-term energy savings associated with green schools. A study conducted by the Massachusetts Technology Collaborative reported that building green schools costs just 1.5 percent to 2.5 percent more than traditional schools; yet provides substantial long-term financial benefits (Kats, 2005). Perhaps, the greater challenge to creating green schools is the need for a commitment from all of the involved partners. Yet, there is good news. The good news is simply that several organizations have developed implementation models designed to help school communities go green. Arguably, one of the most comprehensive is the model developed and promoted by the Green Schools Initiative (Karliner, 2005). Other organizations suggest slightly different models. For example, The U.S. Department of Education, Healthy Green Schools, or The Center for Eco literacy all suggest development models.

SUGGESTED STEPS FOR GREENING SCHOOLS

Regardless of the organization, it appears that the essential model for going green consists of three important steps: planning; developing action areas, and engaging participation.

The foundation of any planning effort should be obtaining support from as many constituent groups as possible. To be successful, becoming green should be part of a school’s mission (Curwood, 2013). The idea of going green should become part of the regular school day. Committees focusing on the various locally identified areas of need should be formed involving as many different stakeholder
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