

# Outdoor Learning

Middle School

High school

Elementary Education



## Intervention Overview

One argument for the decline in mental, emotional, and social wellbeing among children and adolescents is reduced time spent outdoors. One study found that, in the UK, 37% of children spent fewer than 30 minutes playing outside, and 43% spent more than two hours on electronic devices daily (Wen et al., 2009 cited in Harvey et al., 2020). One possible solution is to increase students' contact with nature through outdoor learning. Outdoor learning provides students with the opportunity to learn through hands-on contact with nature. Some examples of outdoor learning involve studying biodiversity through discovering and monitoring various animal species that live on or around school grounds, building habitats and food sources, and cultivating a school garden (Harvey et al., 2020; Maller, 2009).

This can be incredibly beneficial for science classes in providing opportunities for field work and experiential learning. Field work fosters students' love of learning as it is based in questions and investigation, and helps students build processing, communication and geographical skills (Kho & Parker, 2010, p. 30). Outdoor learning can also be used to foster learning in other subjects as well, such as math and geography. For example, teachers can encourage students to use outdoor materials, such as rocks, sticks and pinecones, to create and solve math problems, or create maps (Gustafsson et al., 2012). The implementation of outdoor learning activities has been linked not only to greater enjoyment of learning and connection to nature, but also to improved mood and mental wellbeing (Harvey et al., 2020).

## Intervention Guide

Grade Level:	All
Materials:	Outdoor materials (sticks, pinecones, rocks, etc), paper, pencil, measurement tools
Duration:	One hour per week
Implementation:	Use outdoor materials to teach core subjects such as math and geography OR have students study outdoor habitats, animals, etc. for science and research learning techniques.

## Does it work?

In one school, an outdoor learning intervention was implemented for 6 months. Students were taught out-of-doors for at least 1 hour per day on average. Teachers used outdoor materials to teach different subjects- such as using branches, stones and cones to teach geometrical shapes or to create maps to teach geography. This study did report some improvements in mental health of male students who participated in outdoor learning activities (Gustafsson et al., 2017). Researchers suggest that this intervention may be particularly beneficial for urban schools, where students have fewer opportunities to interact with nature outside of school (Gustafsson et al., 2017).

A larger study of 549 students, ages 8-11 across the UK, found similar results. Students in the intervention group had lessons outside the classroom, on school grounds, for one hour each week (Harvey et al., 2020). The students participated in hands-on activities studying different species- birds, amphibians, insects, etc. Activities centered around monitoring species and building new habitats and food sources, such as bird houses. Students in the intervention group had significantly increased short-term mood and long-term wellbeing scores over the course of the study as compared to students in the control group (Harvey et al., 2020).

## References:

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- Kho, E. M. & Parker W. (2010) Learning beyond the school walls: Fieldwork in Singapore, grades 1-6. *Social Studies and the Young Learner*, 22(4), 29-31. [https://www.socialstudies.org/publications/ssyl/march-april2010/kids\\_learning\\_outdoors\\_fieldwork\\_in\\_singapore\\_grades\\_16](https://www.socialstudies.org/publications/ssyl/march-april2010/kids_learning_outdoors_fieldwork_in_singapore_grades_16)
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