LEARNING LANDSCAPE:
a playground system for active math learning

Developed by a team of industrial designers from nonprofit design coalition Project H Design, Learning Landscape is a scalable, grid-based system for elementary math education. The spatial grid combines athletic activity and competition with mathematic curricula, providing an outdoor classroom framework for fun and engaged learning. Because math is universal, Learning Landscape can be adapted for use in any country and can be tailored to a range of skill levels.

The designers conceived of a series of math-based games to be played within the square grid, which can be built in a 5x5 configuration based on the number of students and space constraints. The grid is constructed using reclaimed tires, which mark the points on the grid, set inside a large sand box, approximately 25 feet square. For game play, numbers are written directly on the tires with chalk. The tires can also be used as outdoor classroom space when coupled with an integrated bench system.

The games teach concepts including addition, subtraction, multiplication, and division, as well as spatial and logical reasoning through individual and team-based competition. In Match Me, for example, students form two teams, and compete head-to-head to find the tire whose number corresponds to the correct answer for math problems that the teacher calls out.

To date, Learning Landscapes have been constructed at the Kutamba School for AIDS Orphans in Uganda, the four elementary schools in the Bertie County School District in North Carolina, and the Maria Auxiliadora Primary School in Mao, Dominican Republic. In both school locations, teachers have adapted the games for other subject matter, including science, geography, and vocabulary. The Bertie County Schools have also used the Learning Landscape as an assessment tool for state and national standards testing.

Learning Landscape, as an educational tool, is both universally adaptable and context specific, making it functional on a global scale and in variable implementations. Project H continues to work on the development of an extended game workbook, and an online community for teachers to access and upload new Learning Landscape games.

Project H open sources construction documents for the Learning Landscape and asks for a small donation for the game book material. For more information please visit www.projecthdesign.org, or for project inquiries and press requests please email us at: info@projecthdesign.org