

The Flatirons Outdoor Classroom is a project within the Boulder Valley School District in Boulder, Colorado, that consists of an interdisciplinary outdoor learning environment combining elements of science, art, social studies, and the humanities. The project has two parts. Phase 1 (now completed) focused on the creation of an integrated outdoor classroom space. Phase 2 proposes the development of curriculum projects to make full use of this unique space (<http://sciencepolicy.colorado.edu/flatirons>).

The classroom itself consists of four elements. A riverbed runs the length of the school building (135 feet), offering a depiction of the Boulder Creek watershed. At the top, students are able to fill a 600 gallon reservoir with water, and then send a flood down the channel. Streamflows are used for experiments in hydrology and sedimentology, as well as for thought experiments in water politics (e.g., learning about senior/junior water rights and the possible effects of 100 year floods along Boulder Creek). The water is captured in a large underground cistern, and pumped back up to the reservoir for repeated experiments. Second, a geology exhibit uses samples of local strata to represent the Flatirons and other regional features of the Rocky Mountains and High Plains. Adjacent to the rocks, on the side of the building, a large mural is being created that depicts Colorado across geologic history. Utilizing reproductions of paintings commissioned by the Denver Museum of Nature and Science--a partner on the project--teachers will be able to move back and forth between the representations of ancient Denver and the rock outcrops, instructing students in the philosophical and political aspects of scientific research by juxtaposing the geologic strata to pictures of the geologic past.

Third, a performing arts area sits adjacent to the geology exhibit, consisting of a stage and a terraced seating area, with the streambed running between. A small Zen garden also rests between the geology exhibits and the stage, providing opportunities for artistic expression and personal development. Finally, on the eastern end of the project a botanical garden has been created: in addition to various types of garden plants, the space will be used for cultivating plants used by Western pioneers. Students in each grade level will have direct curricular ties to the classroom: studying water, rock, and the soil; planting seeds, bulbs and vegetable crops; and watching and learning about insects and birds. Teachers will use each of these areas as teaching tools to explore the connections between scientific investigations and artistic expression.

Phase 2 plans ~~just launched~~ call for the dissemination of the curricular ideas generated by the outdoor classroom. After a series of in-services where district teachers will receive training in integrating the earth sciences and the humanities within the classroom space, regional workshops will be run at the outdoor classroom, where educators can use this site as the model for research and discussion of interdisciplinary approaches to K-12 education. The goal is to create a model that will help schools nationwide apply the principles learned here for developing interdisciplinary outdoor classrooms in their own localities nationwide.