

Ferris State University is proposing a professional development curriculum program, "Rails to Trails: A living Experiential Laboratory." This is a comprehensive project-based K-12 curriculum using the Rails to Trails of West Central Michigan as a living laboratory for the application for mathematics and natural sciences subject knowledge beyond the classroom. A cross-section of teachers from schools adjacent to the White Pine Trail route will design field experiments and structured collaborative learning activities. These activities will emphasize an integration of applied skill in observing, measuring, recording and analyzing, researching and reporting.

The direct goals of this project are to create and develop learning activities on a website with complementary multimedia materials that enable teachers and students to integrate math and science into their lives beyond classroom boundaries. This curriculum includes special references to the natural and social world in West Central Michigan, and trains teachers in the West Michigan area in experiential learning techniques based on a hands on curriculum that is at their back door. Indirect goals of this project are to raise MEAP scores and carry over the Michigan curriculum standards into real world applications.

The project will produce:

- Learning activities linked to the Michigan Curriculum Foundation Standards
- A website
- Complementary multimedia materials that enables teachers and students to integrate math and sciences into their lives beyond the classroom boundaries.

For students exposed to sufficient project materials:

- Competencies in core curricular subjects should rise.
- MEAP scores should rise.
- The ability to apply the Michigan curriculum standards to real world situations should increase.