



# Bird Calls and Golf Balls

## Horizons Alternative High School

### Building the Bridge between Best Practices in Golf Course Management and Environmental Stewardship through Community-Based Learning

Pairing a county-owned golf course with high school students, this Lake Superior Stewardship Initiative project is designed to integrate all core subjects as students study the natural and economic history of northern Keweenaw County.

At the Keweenaw Mountain Lodge, students will conduct a wildlife inventory, create a site map using GPS technology, build bird nesting boxes, learn to conduct soil and water quality tests, and will acquire the general knowledge needed to ensure clean water supplies, protecting the health and integrity of

the Lake Superior watershed. To promote environmentally responsible practices in golf course management, Horizons students will help the Keweenaw Mountain Lodge to qualify as an **Audubon Cooperative Sanctuary Golf Course**.

Back in the classroom, students will read nature-based literature and will develop communication skills as they prepare presentations for a wider audience. Math skills will be enhanced through real-world applications of graphing and data analysis, and civic engagement will be valued at a school-wide level.

#### Community Needs addressed:

- Protect our environment
- Preserve our golf heritage
- Enhance natural areas and wildlife habitats
- Improve efficiency of golf course operations
- Minimize potentially harmful impact of course operations
- Foster environmental stewardship throughout the community

#### Community Partners

- Keweenaw Mountain Lodge (owned by Keweenaw Cty)
- MTU Center for Water and Society
- Copper Country Audubon Club



#### Horizons Alternative High School

2009-10 School Year:  
45 students

Ms. North—Math & Science  
Mr. Theisen—Language Arts  
Mr. Wickstrom—Social Studies  
Mr. Johnson—Math  
Mr. Davidson—Math & Science

### Audubon Cooperative Sanctuary Golf Course:

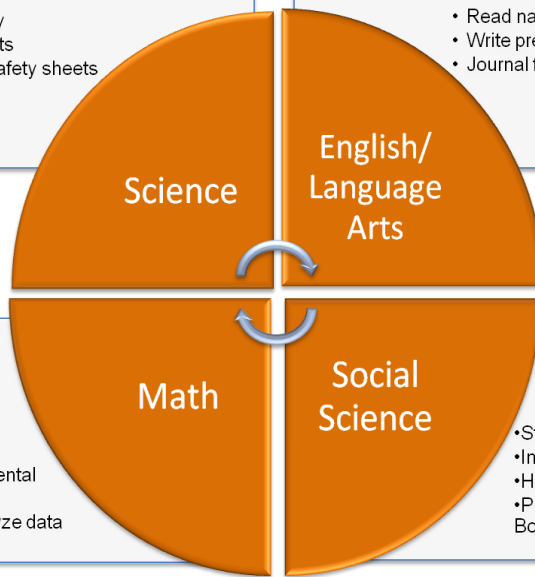
1. Environmental Planning
2. Wildlife and Habitat Management
3. Chemical Use and Education Safety
4. Water Conservation
5. Water Quality Management



## Specific Outcomes of Student Learning

- Conduct wildlife inventory
- Perform water quality tests
- Develop chemical data safety sheets

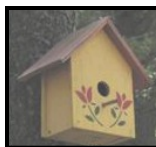
- Read nature-based fiction
- Write press releases
- Journal field experiences



- Experience real-world applications
- Distinguish between observational & experimental studies
- Collect, organize & analyze data

- Study local government
- Improve mapping skills
- Host open house
- Present project to School Board

*Horizon's project will allow the Keweenaw Mountain Lodge to develop a more environmentally sustainable management plan and qualify as an Audubon Cooperative Sanctuary Golf Course. Multiple use of the site will help to extend the typical tourist season, as birders flock to the Lodge in the early spring.*



## Proposed Timeline

Design project, submit grant, secure community partners, attend teacher workshops and professional development

Nature-based fiction & poetry  
Chemical safety sheets, 3-D map model, bird survey, wildlife inventory

Plant native plants for water buffer

Build bird nesting boxes and bat houses  
Water Quality testing

Open house at KML

Complete wildlife inventory, water quality testing, nature-based fiction

School board presentation

Feb 2010

April 2010

June 2010

Sept 2010

Oct 2010

Jan 2011

March 2011