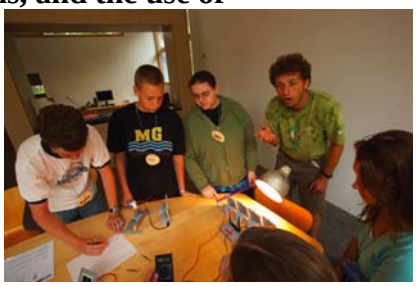
CONCORDIA LANGUAGE VILLAGES

Concordia College, Moorhead, Minnesota USA

Environmental Immersion – Experiencing Alternative Energy, Hands-on

Concordia Language Villages in conjunction with the science and education departments of its parent organization, Concordia College, have developed a new hands-on, experiential science program for 7th - 9th graders. The program will take place at the unique, super energy-efficient *BioHaus* Environmental Living Center located at the German Language Village, *Waldsee* in Bemidji.

What do the Language Villages have to do with science education and renewable energy technology you may ask? As part of the Language Villages overall mission" preparing young people for responsible citizenship in our global community" we provide educational opportunities for our participants to explore and learn about sustainable living. Being experts in the field of immersion learning we applied our knowledge to the development of new, experiential science experiences for 7th - 9th graders that utilize the *BioHaus*, an environmental living center in which the students live, study and interact while being immersed in cutting-edge, sustainable building design and technology.



Our one day science program at the award-winning *BioHaus*, introduces 7th - 9th graders to the topic of energy conservation, CO_2 emissions, and the use of alternative energy production from renewable sources, all topics becoming increasingly important in our daily lives. In small groups of 6-8, science students will be immersed in exploring how renewable energy production works by literally building, playing, and manipulating model solar hot water systems, photovoltaic panels, hydrogen fuel cars and wind generators. The students design their own system set-ups, collect data on the systems' performance, analyze it and revise their systems based on their findings to improve their efficiency using the scientific approach.

In addition, **students will experience how the super energy-efficient *BioHaus* is capable of consuming 85% less energy than a typical Minnesota building.** Using the *BioHaus'* elaborate monitoring system, students can check the vital functions of the 1st certified Passivhaus in North America and its performance not only

while in the building but also from any computer back in their classroom or home.

Finally, by using an online carbon calculator, the participants will **learn how their life habits, choices and behavior affect their own personal ecological footprint**, the perfect springboard for continued discussions and work back in the classroom.

The one day science program at the BioHaus includes

- a German lunch in the German Language Villages' *Gasthof*,
- written materials with suggestions on how to expand on the BioHaus experience
- written materials on the wind generation activities for optional continuation in the classroom
- a complete wind generation kit for the classroom

For registration or further info, please contact Edwin Dehler-Seter at dehler@cord.edu, 218-586-8711 or 218-556-1347.