



## Research Connects Learning to Standards

- 1. A study of over 40 schools indicates that students learn more effectively within an environment-based context than within a traditional educational framework.<sup>1</sup>**
  - Results based on site visits, interviews, and surveys, indicate gains on both standardized test scores and Grade Point Average's
  - Other results include reduced discipline problems, increased enthusiasm for learning and greater pride in accomplishments
- 2. This study of 77 pairs of schools concluded schools in Washington with experience based education programs consistently have higher test scores on state standardized tests.<sup>2</sup>**
  - Indicates that learning about the real world improves student learning
  - Concludes overall higher academic performance
- 3. PEI directly measures student achievement.**
  - Students learning through PEI's programs meet or exceed state standards (EALRs)<sup>3</sup>
  - PEI's 2004 direct measures of students learning indicated that students in elementary and middle EE school<sup>4</sup>

### PEI's Research Model

#### Emphasizes the environment to bring relevancy to students' learning.<sup>5</sup>

- PEI's partner school districts align their K-12 curriculum around environmental themes. Teachers use the Essential Academic Learning Requirements (EALRs) as the foundation for learning and development of students' thinking.
- PEI assessment tools modeled on the WASLs assess student learning to guide teachers work.

<sup>1</sup> *Closing the Achievement Gap; Using the Environment as an Integrating Context for Learning*. Lieberman, G.A. and L.L. Hoody. State Education and Environment Roundtable, 1998. Sponsored by the Pew Charitable Trust.

<sup>2</sup> *Environmental Education: Improving Student Achievement*, Oksana Bartosh, Master's Thesis, The Evergreen State College, 2004. Pacific Education Institute Technical Report No. 6.

<sup>3</sup> *Demonstrating the Efficacy of Environmental Education: Using Criterion Referenced Tests to Demonstrate Student Achievement on State Discipline Based Exams*. Catherine Taylor, PhD. et al., 2005. Pacific Education Institute Technical Report No. 7.

<sup>4</sup> Comparisons between schools on student achievement in environmental education and subject area performances. Bartosh, Tudor, Ferguson, Taylor 2005. Pacific Education Institute Technical Report No. 15.

<sup>5</sup> *PEI Student Achievement Research Program is described in Pacific Education Institute Technical Reports Numbers 1 through 8*