Digital Observation Technology Skills (DOTS)

La Escuela Fratney: A Case Study

The case study with La Escuela Fratney highlights the first three month partnership that was created between one school teacher and the Research Team at Upham Woods. La Escuela Fratney represents a case of repeated exposure to the DOTS curriculum and to the DOTS tools and equipment. It culminated with a mini elementary research symposium which was the first of its kind. Upham Woods hopes to use the process detailed below with many other schools.

Sarah Oszuscik, 5th grade science teacher at La Escuela Fratney, a public Elementary School in Milwaukee County, attended a Digital Observation Technology Skills (DOTS) educators training at the Urban Ecology Center in Milwaukee on June 24, 2015 through the Latino Earth Partnership.

The 5th grade students from La Escuela Fratney display their skills with the DOTS tools

After this educator training in the summer, Sarah was interested in lending several DOTS kits for the 33 5th grade students in her school to use in their own classroom over the fall semester, in preparation for their visit to Upham Woods in November. Three DOTS kits were delivered to her through the DOTS lending program, and Sarah developed a schedule for the kits' intended use throughout the time the kits were at Fratney.

With the help of the Upham Woods Research Naturalists, the mobile technology tools were first introduced to the 5th grade students, allowing them to develop tool familiarity in an indoor setting.

The students gained experience using the tools outside as they investigated the area surrounding their school. They explored tool capabilities and made temperature connections to a familiar place.

September

Outdoor inquiry continued as the students took the DOTS kits on a field trip to the Lynden Sculpture Gardens in Milwaukee. They utilized the tools in an aquatic macroinvertebrate lesson, as well as in an exploration of the various sculptures in the area.

October

The students came to Upham Woods and participated in the DOTS program on Blackhawk Island. They also participated in a technology grant that studied their attitudes towards technology and the outdoors.

November

Upham Woods Outdoor Learning Center

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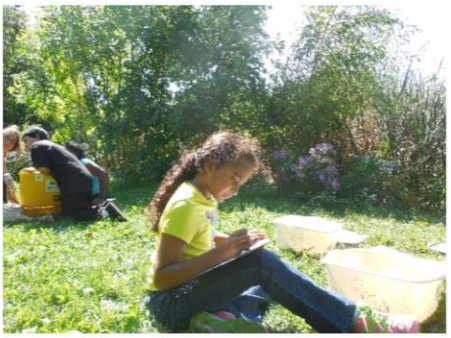
The second exposure to the DOTS tools came about one month later during a field trip the students took to the Lynden Sculpture Gardens. The Research team from Upham Woods once again met with the students to help facilitate open inquiry investigations.

Throughout the month leading up to this field trip, the students were able to utilize the DOTS tools in their everyday classroom environment, and it showed! The students were much more comfortable with the tools, and had a better grasp of their capabilities. The students were able to create their own questions and find their own answers with the tools they had available. The students were beginning to make critical observations about their surroundings

Research Symposium at Upham Woods

The culmination of this three month project resulted in an elementary-level research symposium, in which the students presented their scientific findings after participating in the technology programming at Upham Woods. They prepared posters full of photos, drawings and descriptions. The students shared what they had observed, connections made, and questions that they still had after their investigation.

This symposium was a way to synthesis and analyze all of the repeated exposures the students have had to the DOTS tools and lessons. The students were genuinely engaged, eager, and excited to share their findings with each other, their teachers, and the Upham Woods staff.



A student taking the time to reflect after using the DOTS tools to look at aquatic macro-invertebrates

It was evident that the technology resources and programs offered through Upham Woods had given the students a valuable educational experience that will impact their future time spent outdoors.

Students use the DOTS tools to explore the sculptures at the Lynden Sculpture Gardens

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