



## LOVE FOR PEONY CREEK

MuDang (*peony*) Primary School (MDPS) sits right by Peony Creek; fireflies can be easily found not far off from the campus every spring and summer. And by integrating resources from the local community with the curriculum, the staff has continued to bring their students close to know, to play at, and to live with the creek. They simply hope that these children can wholeheartedly embrace life by Peony Creek and that natural resources may be preserved and treasured by the community.

Thus, an action research on environmental education was launched in 2012, and its corresponding curriculum was divided into two phases. Each phase aimed to encourage meaningful learning with cognitive, social/affective, and skill-based outcomes for children ages 7 through 12. Moreover, a corpus of test questions was also created for pre- and post-tests to assess students' abilities during this study.

History came alive as the elders told their life stories by the creek; the children (re-)discovered the fauna, the flora, and the topography around the creek—these findings were all noted on an ecology map as these courses were complete. The following gives guidelines on the curriculum design:

### Phase I

#### A. Cognitive Learning Activities

For 1<sup>st</sup> and 2<sup>nd</sup> Graders: Students learn about water safety through reading;

For 3<sup>rd</sup> and 4<sup>th</sup> Graders: Students learn about the flora through reading;

For 5<sup>th</sup> and 6<sup>th</sup> Graders: Students learn about the flora and the topography through trekking and field research.

## B. Social/affective Learning Activities

All students closely observe the fauna and the flora by Peony Creek and later compete in ducks and drakes.



## C. Skill-based Learning Activities

For 1<sup>st</sup> and 2<sup>nd</sup> Graders: Students adapt familiar lyrics and paint pebbles with crayon and watercolor;

For 3<sup>rd</sup> to 6<sup>th</sup> Graders: Students set up PowerPoint digital albums full of snapshots of unique flora and integrate the topography and satellite imagery to draft a map.

## Phase II

### A. Cognitive Learning Activities

The elders are invited to tell about their childhood by Peony Creek; all students get to know more about ways of life in the past.

For 3<sup>rd</sup> to 5<sup>th</sup> Graders: Students make field survey of the fauna in Peony Creek and later present their findings with snapshots to their peers;

For 5<sup>th</sup> and 6<sup>th</sup> Graders: Students arrange interviews with the elders to learn more on the damages caused by Typhoon Nari to Peony Creek, the outlook of Peony Creek, and issues that pertain to ecological engineering methods and dam construction.



## B. Social/affective Learning Activities

Cleanup and water quality check are initiated by the students.

## C. Skill-based Learning Activities

For 1<sup>st</sup> and 2<sup>nd</sup> Graders: Students compose poetry on cards;

For 3<sup>rd</sup> to 5<sup>th</sup> Graders: Students mark sites on their maps and serve as tour guides on campus;

For 6<sup>th</sup> Graders: Students lead and organize activities of *PeonyWatch*; students team up to keep guard over the creek.

To sum up, this action research has developed a number of positive outcomes as follows:

1. Great diversity of teaching methods and assessment is sought; teaching expertise in the field of environmental education (especially that related to streams) is strengthened;
2. As shown in the post-tests, students demonstrate significant improvement in environmental awareness. In fact, average scores have increased 136%;
3. Students become more motivated to learn, to inquire, and to ponder;
4. The community resources can be mobilized; the school can be better supported.

