Project Summary

This project creates a database (hosted on a YouTube channel [https://tinyurl.com/kfospkb](https://tinyurl.com/kfospkb)) of short videos demonstrating STEM experiments and hands-on inquiry activities relevant to the K-12 curriculum. The database is used to support Teacher-Candidates in the UBC Faculty of Education in their courses, on practicum and post graduation. It is open to the general public.

These videos originate from hundreds of low-cost, safe, and ‘green’ hands-on STEM stations presented by the Teacher-Candidates to the general public during the annual Family Math and Science Day.

Overall Objectives:

To amplify the effect of STEM outreach – Family Math and Science Day – and to further its impact on all Teacher-Candidates and instructors in the Faculty of Education and on the larger community.

What’s in the Database?

In order to achieve the above objectives, we created a YouTube Channel that:
- contains a list of videos of successful activities
- includes descriptions with photos, videos, pedagogical suggestions, etc.
- is annually updated by Teacher-Candidates and project leaders
- serves as a teaching resource for Teacher-Candidates during the practicum and beyond
- instills confidence, ownership, and expertise in inquiry-based teaching (New BC Curriculum)

Family Math & Science Day 2016

UBC President, Dr. Ono (third from left) and his wife Wendy (second from left) came to celebrate STEM with us. Also in the photo: EDCP Head, Dr. Nashon (first from left), Dr. Milner-Bolotin, Dr. Tan and a Teacher-Candidate volunteer.

Expected Project Outcomes

- The UBC Faculty of Education will have an interactive database of videos (including all the documentation) of 100+ STEM hands-on activities to support Teacher-Candidates during the practicum and beyond
- Teacher-Candidates will develop confidence to teach by inquiry using hands-on activities as required by the new BC Science curriculum
- Teacher Education Office (TEO) will get a resource for STEM and elementary teachers to encourage them to adopt inquiry approach
- EDCP faculty members will use the resource in their teaching that promotes continuity from year to year
- More UBC STEM students might consider teaching as a profession (through outreach)
- UBC will contribute to the community by supporting K-12 teachers outside of UBC and promoting STEM outreach.

References


Acknowledgements

UBC Faculty of Education
UBC Department of Curriculum and Pedagogy (EDCP)
UBC Teacher Education Office (TEO)
UBC Pacific Institute for Mathematical Sciences (PIMS)
UBC Department of Physics and Astronomy

Partners

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UBC Teacher Education Office Faculty of Education Educational Technology Services (ETS)
Pacific Institute for Mathematical Sciences (PIMS)
UBC Department of Physics and Astronomy