1 Introduction

The SNAP Foundation is a non-profit organization whose mandate is to encourage the development of mathematics learning resources at the classroom level with very little retraining of the teaching staff, with very flexible budgets, and by utilizing the energy and natural curiosity of the students themselves. The main theme of the BIRS workshop was, “What is a SNAP math fair and how to organize a math fair in your classroom”. The speakers mostly consisted of teachers/educators who shared their math fair experiences and success stories.

The first SNAP type math fair was designed in Edmonton by Mike Duman-ski and Andy Liu in 1997-1998. Since then, a large number of schools in Alberta and beyond have adapted the SNAP math fair to their needs. The SNAP program has been spread through similar workshops and conferences, and mainly by teachers themselves.

SNAP received its initial funding from the Canadian Mathematical Society and from private donations. PIMS, the Pacific Institute for the Mathematical Sciences, has been a long time financial supporter of our math fairs. BIRS, the Banff International Research Station, has provided funding for the BIRS math fair workshops that have been held in Banff on a regular basis. Currently, our major supporter is Thinkfun - a company that develops a variety of excellent puzzles.

2 Puzzle Resources

- www.mathfair.com
- www.puzzles.com
- www.nrich.maths.org
- www.galileo.org
- www.mathpickle.com
3 2015 Workshop Highlights

The workshop started out with a presentation by Tiina Hohn of MacEwan University and Janice Hoffman of Belmont School in Edmonton. Tiina introduced the topic of "What is a Math Fair?", and Janice shared the experiences that she and the other teachers at Belmont school had this year while organizing a school-wide (K-6) Math Fair. This was followed by a presentation from Nicole Kotyk of Evergreen Elementary in Drayton Valley sharing her experiences in organizing her second Math Fair. These presentations are very important for teachers who are thinking of having a Math Fair but are unsure how to start. Here are some of the issues Janice and Nicole addressed: where they found their puzzles, how and when they introduced the puzzles to their students, how student groups were chosen and how the puzzles were allocated to the groups, the importance of dress rehearsals, when and where their Math Fairs were held, who was invited to their Math Fairs, how they assessed their students.

A presentation by Brian Simmons of Twelve Mile Coulee School in Calgary followed. Brian shared his experiences in using a 3D printer in his classroom. It was very eye-opening to see how a puzzle-solving mind-set can lead into this exciting application.

4 2015 Workshop Feedback

"As a pre-service secondary math teacher I was very interested in the benefits of incorporating problem solving and puzzles into the classroom and will strive to teach with these ideas in mind. Thanks again for the invite, it was a wonderful experience."

"It was really great to meet so many people who are passionate about math fairs. I loved the atmosphere, and the discussions were illuminating. Thanks for a great weekend."

"I always leave the Banff conference feeling rejuvenated and loving math. There were many different presentations this year that related to teaching and maybe thinking more globally as a teacher (the 3-D printer presentation) I feel that I have achieved a goal in actually getting my whole school involved in a Math Fair... and was interested to hear how other schools collaborate and assess their math fairs. Next year I already know how I can change and improve ours!! I feel very fortunate to have been invited and enjoyed all the great discussions and meeting new people."