

2014 Miyo Wahkohtowin Summer Math Camp Summary

Executive Summary

Through the generous support of sponsors, Miyo Wahkohtowin Education provided a free 2 week camp to students focused on improving and expanding math skills. The camp ran from July 7th thru to July 18th, 2014. Key sponsors included, Intellimedia, the University of Alberta, The Pacific Institute for the Mathematical Sciences, as well as the Telus World of Science.

Intellimedia managed the camp, recruiting two certified teachers and two educational assistants to operate and facilitate the camp activities. The goal for this year was to build on the momentum from the previous math camp to further improve student math skills as well as inspire interest and enthusiasm for mathematics. Activities included a balance of math instruction, activity centers, physical activity as well as special highlights including two field trips. Organizers and operators agree the camp was a success against the stated objectives and goals including most important demonstrated growth in math skills, as well as engagement and enjoyment of the students.

Highlights:

- 86 % of Student improved scores on multiplication facts pre and post-test
- Individual growth ranged between 4% to 50 %
- 66% increase in attendees from 2013 camp
- High level of student engagement
- Fun and educational field trips to U of A as well as Telus World of Science

Attendance and Student Profile:

• 73 registrations received
• 45 students attended (21 Male/24 Female) (7 students only attended one day)
• Average of 34 students attended per day in week 1 and 26 students attended per day in week 2
• 13 students recently completed grade 5, 12 students recently completed grade 6, 15 students recently completed grade 7, and 5 students recently completed grade 8.
• Highest level of participation were on Wednesdays and Thursdays

Operational Summary:

Content Themes	Daily Schedule	Highlight Activities
<ul style="list-style-type: none"> • Week 1: Geometry including exploration of shapes, understanding different types of polygons and how to measure them to find the perimeter and area • Week 2: Geometry, exploration of 3D shapes through building nets of different 3-dimensional shapes and studying their surface area. Students built a 3D model from a 2D blueprint they created. • Daily review of multiplication fact strategies for all facts up to 12x12 	<ul style="list-style-type: none"> • Breakfast • Icebreaker or warm up activity • Mini lesson on daily math topic • Math centers based on topic of the day • Brain break activity • Lunch • Fact frenzy • Group physical activity (kickball eg.) • Activity centers (computers eg.) 	<ul style="list-style-type: none"> • Field trip to Telus World of Science • Field trip to University of Alberta. • Fun physical activities including water fights

Camp Effectiveness:

Attendance	Learning	Engagement
<ul style="list-style-type: none"> • 28 registered students did not attend • Average daily attendance 80% • Lower attendance on Tuesdays • 15 students came everyday • 7 students only attended 1 day of camp • 15 students registered after camp had started and 13 of them attended camp after registering • Higher attendance in the first week • Field trip on the Monday helped with attendance 	<ul style="list-style-type: none"> • 86 % of Student improved scores on multiplication facts pre and post-test • Growth demonstrated in areas of 2D and 3D shapes • 3 Students achieved 100% on facts sheet • 1 student doubled number of multiplication facts completed in a given time • 85% of students felt they learned or improved math skills • 84% of students felt the skills they learned would help them with math at school 	<ul style="list-style-type: none"> • High degree of student participation in activities • Children enjoyed and appreciated variety of activities including fun physical sports and field trips • U of A Field trip helped foster interest in future post secondary attendance • 80% of students had fun at the camp • 95% of students said they would attend camp next year if offered

Lessons Learned:

Strengths	Challenges	Suggested Improvements
<ul style="list-style-type: none"> • 3D model project was very successful • High engagement from students • Demonstrated growth in math skills • Strong team of teachers and EAs • Good student/leader ratio allowed for more one on one work • Mix of activities to include academic, physical sport, and activity centers as well as field trip • Lots of fun facts games kept students engaged • 	<ul style="list-style-type: none"> • Lack of planning time for leaders • Differentiated levels of skills among students • Location (lack of A/C) • Decreased attendance in the second week • Meal planning • New skate park - students always wanted to go there • Teenage drama- girls bullying other girls 	<ul style="list-style-type: none"> • More assessment of skill development through quizzes etc. (pre test/post test) • Reduce camp to 8 days (Tuesday to Friday) with Fridays focused on field trips • Dedicate Mondays to leader planning • Better meal planning and greater variety • Incorporate greater cultural activities • Phone call before camp starts to remind parents • Make sure iPads have apps that fit topics being taught • Give each student a reusable water bottle that they can refill for the two weeks • Need fans • Use schools mini buses for fieldtrips (teachers need their class 4) • Take students to spray parks in the surrounding communities and do math activities there • Level students by skill into teams