



2015-2016 AESN Case Study

School: David Brankin Elementary

District: #36 Surrey

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Our focus for this year: Our focus was to provide an instructional opportunity in Math that identified the current potential and wisdom of the Aboriginal culture through beading and using math calculations as well as the planning required for intricate designs that told stories and passed down knowledge.

Scanning: We begin the scanning process by consulting with most of our identified Aboriginal students. The most helpful question at this point is “Can you name TWO adults in this school who believe you will be a success in life?” because it was the most revealing and gave us a starting point.

The four key questions acted as a way of assessing and reflecting on the effectiveness of this inquiry project. We asked our students these questions in the beginning, and used them as a means of determining our course of action for this project. Following the project, we will be asking the students the same questions to see if there will be any change in their responses.

Focus: Our focus is to bring awareness of Aboriginal culture in a cross-curricular way that is meaningful. We hope that our students will have a better understanding of the importance of elders teaching the younger generations and the significance of Aboriginal culture through beading. Our goal is to change the mindset of our learners; to expand their prior knowledge of Aboriginal culture.

Hunch: A hunch of ours is that many of our Aboriginal students feel their culture and its many rich traditions are separate from that of the school culture. Another hunch is that all of our students see Aboriginal practices as historic, separate, outdated, and irrelevant. By incorporating and explicitly teaching the sustainable, respectful, and useful methods of Aboriginal cultures, all our students can develop respect and understanding for relevance of these practices both historically and currently. The connections to deep mathematical understandings would be important for our students to know.

New professional learning: Aboriginal understandings of the natural world are more and more connecting to modern science understandings. The concept of everything being connected, relationships, needs for sustainability and balance are needed now more than ever. By discovering practices developed from these values and connecting them as solutions for today’s needs we can help all students connect and understand the relevance of these cultures.

Taking action: We paired up two participating classes, grade 4s and grade 6/7s. We wanted to relate buddy work to elders teaching their younger family members or tribe members. We began our project by doing a KWL (know, wonder, learn) chart with both classes to see what their level of understanding was in regards to Aboriginal beading. Students then paired up (one

grade 4 to one or two grade 6/7s) and read a short article explaining the importance of beading.

The students highlighted key facts and together discussed findings from the reading. They had a very clear understanding of the importance of beading before they began beading. We provided students with a few beading ideas and kept the activities simple so that they would not become frustrated. Students had a choice of six beading projects and their options were all animals. We taught them how to properly bead their animal and the students worked in pairs to complete their projects.

Pairing up the younger students with the older students was a benefit as the beading was challenging for some. Students were eager to complete their project with support from each other. If we were to complete this project again, we would pair up older and younger students again to promote student success, as well as mentorship opportunities for the older students.

Students were also practicing math skills of patterning while creating their beaded artwork. We focused on the BC Curricular Big Idea: patterns allow us to see relationships, connecting their beadwork to Aboriginal culture. Students used a variety of tools and technologies to explore and create patterns and relationships. Our goal was to also have students represent concretely and pictorially the significance of their beadwork to Aboriginal culture.

Checking: After our students beading experience, they were able to fully understand the importance beading is to Aboriginal cultures. We used our KWL as a baseline and we used the “L” section to see what they took away from the experience. The data we collected affirmed our hunch that connecting math and art through an Aboriginal lens was interesting, relevant and effective.

Reflections/Advice: In the future, we would like to do more beading activities with students. We believe the activities that we did were a great jumping off point as they were simple enough for grade 4's to understand with help, and they were challenging enough to keep grade 6/7 students engaged. Upon further practice, it would be interesting to see how students would do with a more challenging beading activity, or a beading activity on their own. We advise including more Aboriginal cultural presenters, using the support of Aboriginal Child Care Workers and perhaps inviting Elders in the community to support the project. Math connections can easily extend to numerous natural world experiences that include sorting, measurement and estimation.