

REPORT TO THE BOARD OF EDUCATION OF SCHOOL DISTRICT NO.46 (SUNSHINE COAST)

STRATEGIC PLAN REPORT: NUMERACY

Submitted by District Principal, Kirsten Deasey
February 21, 2022

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- 1d Our students will be numerate . They will have the skills and tenacity to interpret and apply mathematical understandings in flexible, functional, and creative ways.
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Overview:

Numeracy and literacy are the two pillars of the curriculum, and as such, they are woven throughout grades and subject areas. Numeracy plays a critical role in our work as a district in 'Ensoulng Our Schools' as it is a key mechanism for 'Transformative Learning.' This strand of the braid celebrates our students as meaning makers – full of strengths and competencies that we surface and celebrate throughout their educational journeys. Numeracy is woven throughout the other strands as well, as we use compassionate, responsive practices, teach for equity using differentiated instruction, and apply our mathematical skills to deepen our understanding and our connection to land and place.

Numeracy is the ability to understand and apply mathematical concepts, processes, and skills to solve problems and make sense of information encountered in our everyday lives. By applying mathematical skills to interpret, solve, analyze and communicate, our students understand and make meaning of their own worlds and the world in which we live.

Synopsis of this Year's Initiatives:

The Numeracy Committee meets regularly to support our district in meeting the Numeracy Goal articulated in the Strategic Plan.

The Numeracy committee has developed Action Plans in the following four areas:

1. **Assessment & Communicating Student Learning**
Improve our ability to understand, support and communicate student numeracy skills using assessment.
2. **Professional Culture to Improve Numeracy Results**
Continue to build a professional culture focused on improving numeracy for all students.
3. **Numeracy Applications & Community Connections**
Explore ways to extend and apply numeracy in the home & broader community.
4. **Joy in Numeracy**
Foster joyful, creative & flexible thinking, positive engagement & growth mindsets in numeracy for teachers and students.

Actions include:

Assessment & Communicating Student Learning

- A professional learning in-service series has been designed to support K – 12 teachers in their understanding of the Reporting Policy scheduled for implementation next September. The foundational role that numeracy plays in activating the curricular competencies when using standards-based assessment is highlighted and explored throughout the series. A model that includes After School Sessions along with a travelling team who provide in-school support for teachers in all schools has been designed and implemented. Two of the provinces most influential educational leaders in numeracy: Marc Garneau & Janice Novakowski are leading after school sessions, together with educational leads from SD46. The in-school sessions are provided by district teachers and administrators who travel to every school to work collaboratively with Primary, Intermediate and Secondary educators. After school sessions establish the foundation for working together during in-school time, through the support of experts, examples and resources.
- A 'Planning Team' designed to strengthen and support the district-wide in school and after school learning sessions has been formed. This collaborative team includes the provincial mathematical thought leaders: Janice Novakowski and Marc Garneau, the SD46 Numeracy Committee chair and a Planning Team of elementary and secondary principals and teachers has been key in designing next steps in numeracy implementation and communication of student learning.
- Numeracy Committee Members have continued to participate in the Ministry of Education's 'Performance Standards Benchmarking Project.' Our work in this area last year helped inform the Proficiency Benchmarks recently released by the Ministry. The SD46 Numeracy committee will continue to engage in the trialing of these benchmarks to establish a consistent, common language for assessing proficiency in numeracy across grades and learning areas that is aligned province-wide.

Professional Culture to Improve Numeracy Results

- The foundational role that mathematics plays in activating the curricular competencies when using standards-based assessment is highlighted and explored throughout the in-services and working group series described above.
- Janice Novakowski provided an in-service for all of our Kindergarten & Early Years Educators this past September. The focus was on Math Workshop and Reggio inspired numeracy practices. A teacher lead continued the focus on Numeracy, offering a session focused on Number Routines in the primary grades on the Professional Development day in February.
- This year, teachers from Kindergarten to Grade 12 have been invited to work with Peter Liljedahl in a three session series focused on 'Building Thinking Classrooms in Mathematics.' In these sessions, which is a continuation from last year, teachers are questioning institutional norms and practices and exploring research into how teachers can transform their classrooms to encourage student engagement and mathematical thinking. We were able to offer one session virtually this year, and two in-person sessions. Rich discussions centred around the book 'Building Thinking Classrooms' are supporting teachers to look closely at the research, evaluate current practices and explore new possibilities for an even stronger enactment of balanced numeracy.

Numeracy Applications & Community Connections

- Financial literacy is a core component of the mathematics curriculum and a real-world focus for numeracy applications. As in all areas of the curriculum, the complexity of the content and competencies develop and expand over time. While younger students learn about the basics of handling money, the secondary focus is very in-depth with a focus on budgets, taxes, discounts, and mortgages. Numeracy Committee members have been connecting with teachers and the Sunshine Coast Credit Union to explore a scope and sequence for our focus on financial literacy.
- The strong focus this year on providing in-services for all K – 12 teachers is designed to support Communicating Student Learning with students and families. Supporting teachers in developing assessment practices that drive learning is foundational to continued growth. Mathematics, in particular, continues to be a focus of our work in strengthening communication between teachers, students and families this year.
- A district lending library has been created with books, materials and loose parts to resource educators. Math Bins have been created, photographed and catalogued using the Destiny Library System, and can be borrowed by educators, child care providers and families across the Sunshine Coast.

Joy in Numeracy

- All of our initiatives recognize the importance of supporting students to experience joy and fulfillment through numeracy. The 'Building Thinking Classrooms' inquiry series with Peter Liljedahl continues to focus on strategies designed to leverage student engagement in order to encourage deep numerate thinking.
- The demand for math bins in the district lending library has been so high we have recently had to expand the number and scope of math bins available. Our commitment to supporting joyful learning is evident in the popularity of these bins with both students and educators.

Data Analysis and Review:
(see next page)

Data Analysis and Review:

Early Development Instrument ('EDI') 2019-2020 Results



LANGUAGE & COGNITIVE DEVELOPMENT

Children's basic and advanced literacy skills, numeracy skills, interest in math and reading, and memory.

10%



2020-21 Results



LANGUAGE & COGNITIVE DEVELOPMENT

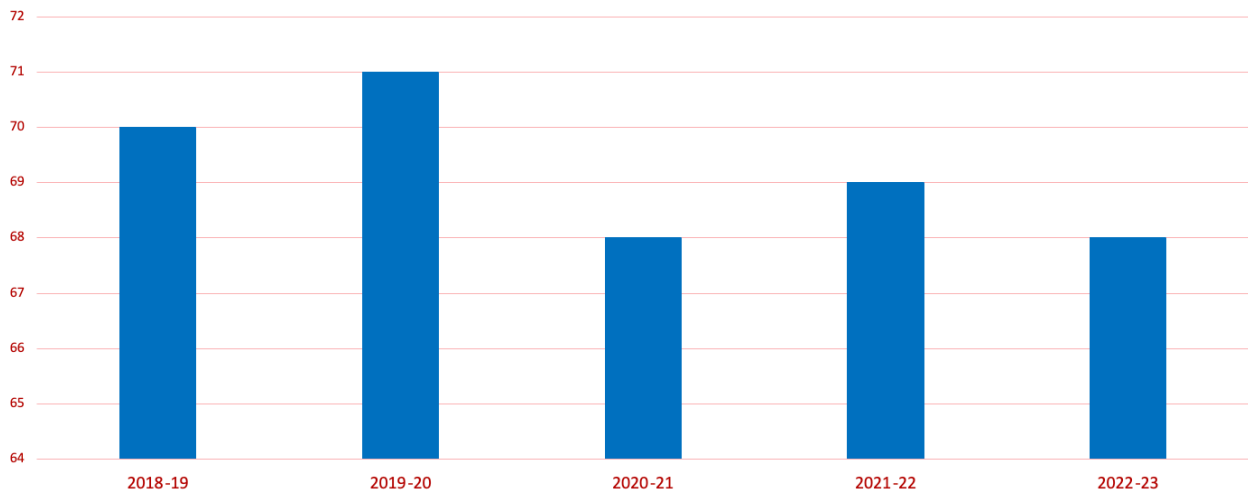
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10%



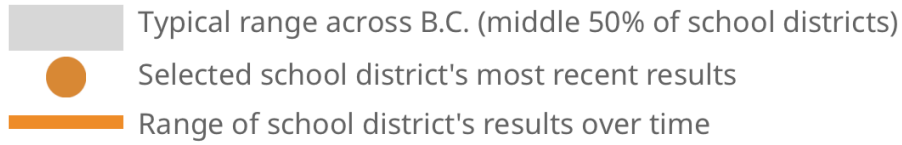
EDI results remain stable in the Communication and Language & Cognitive Development domains of the EDI. These continue to be domains where Sunshine Coast children do very well. We are scheduled to participate in the Early Development Instrument research in the next (2023-24) school year.

School District No. 46 Fall Kindergarten Survey Average Numeracy Results

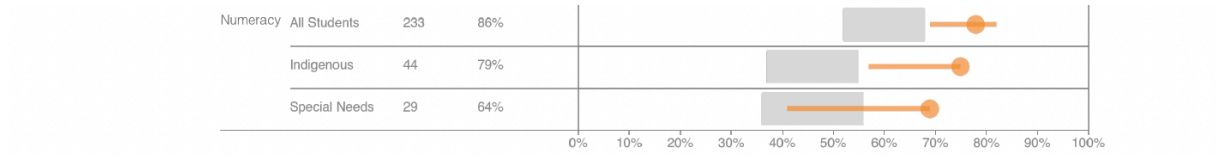


The District's Fall Kindergarten Survey Average Numeracy Results have seen remained quite stable over the past five years, with a range of only 3 points (68 to 71).

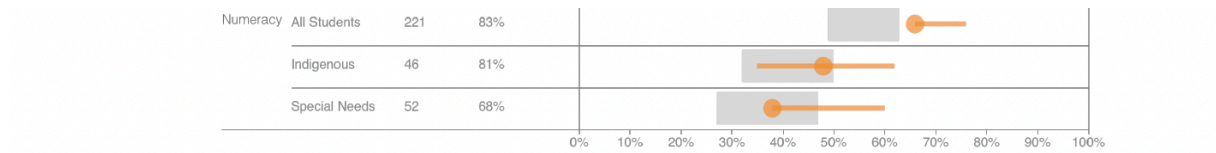
Foundation Skills Assessment - Numeracy - 2021-22



Grade 4



Grade 7



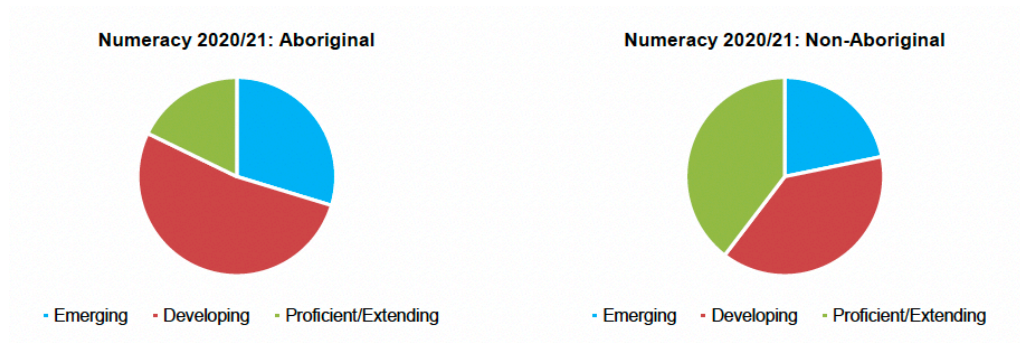
Current FSA results reveal that the majority of Sunshine Coast Students do better than provincial averages in numeracy in both grades 4 & 7.

Graduation Numeracy Assessment (GNA) - 10

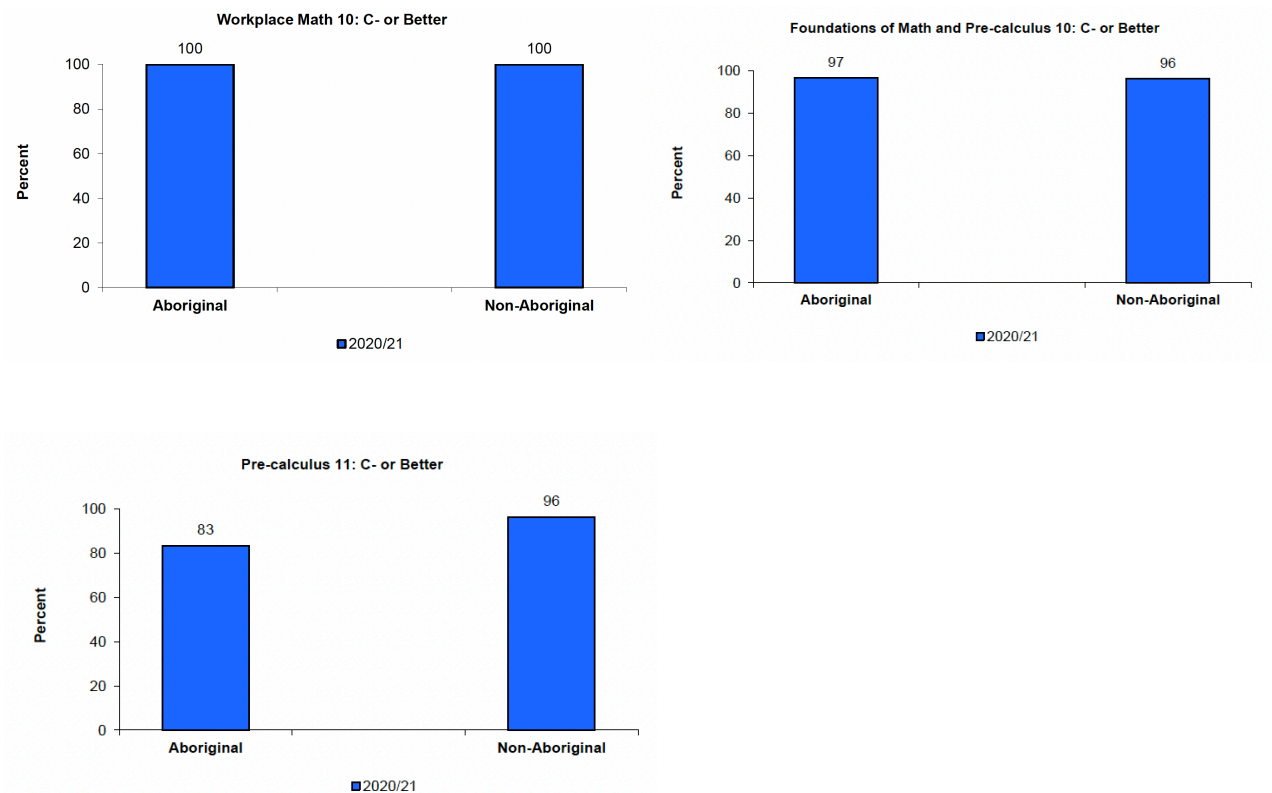
Results indicate that Sunshine Coast students have made significant gains in the percent of students 'proficient' since the GNA assessment was introduced in 2017/18.

- Non-Aboriginal Students: 2017/18: 21% to 2020-21: 36%.
- Aboriginal Students: 2017/18: 6% to 2020-21: 18%.

The majority of students are in the Developing level of proficiency.



Secondary Mathematics Courses



Data from Math Courses indicate that the majority of Sunshine Coast students are succeeding:

Resources/Budget:

Communicating Student Learning In-Services

- Hiring the presenters (Marc Garneau, Janice Novakowski, SD46 Committee Members)
- Release for the participation of all teachers K – 12 in the in-services held during the school day or after school.

Communicating Student Learning Planning & Implementation Team for Professional Learning After School Sessions

- Hiring the presenters (Marc Garneau, Janice Novakowski, SD46 Committee Members) to plan and implement sessions.

Peter Liljedahl's Building Thinking Classrooms in Mathematics Series (3 Sessions)

- Hiring the presenter (Peter Liljedahl)
- Resources for participating teachers
- Support for committee members to collaborate to support implementation.

Resources for Math Bins for the District Lending Library

- Bins contain materials, picture books and professional teacher resources.

Release for teachers to participate in District Numeracy Committees.

Emerging Areas of Need:

- Supporting teachers to align their practice with the requirements outlined in the K – 12 Draft Reporting Policy in anticipation of implementation in 2023-24.
- Enhancing student engagement and empowerment through practices that involve students in the entire learning cycle.
- Provide resources and supports for teachers through a comprehensive Numeracy Framework that is aligned with the curriculum and reporting policy.
- Strengthening of the Ensouling Our Schools braid of 'Transformative Learning' that incorporates all of the above and weaves Indigenous knowledge and perspectives and First People's Principles of Learning into all of the work we do in Numeracy and Learning.
- The decolonization of the work we do in schools and the role numeracy plays in the 94 Calls to Action in moving us forward in Truth & Reconciliation.

Adaptations/Next Steps:

- The next few years will focus on supporting teachers across our district to use current best practices in numeracy assessment and communication of student learning in anticipation of the new Ministry Reporting Policy.
- A focus on promoting an understanding the foundational role of numeracy across the curriculum
- Developing a structure to support access to a comprehensive SD46 Numeracy Framework (website/engage)
- Supporting teachers to practice teaching and assessing curricular competencies in the classroom.
- Support educators to be responsive and student-centred in their numeracy practices.
- Numeracy practices that incorporate Indigenous Ways of Knowing and Being, as a fundamental braid woven into the district-wide Ensouling Our Schools series.
- A continued focus on Joy in Numeracy.