

# HWDSB

## Math Leadership Community of Practice



### Strengthening the Mathematics Curriculum: An HWDSB Research-Supported Professional Learning Community

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# Mathematics Leadership in the **HWDSB** Classroom

## HWDSB and KNAER

Our local HWDSB professional learning community (PLC) is proud to be a part of the Knowledge Network for Applied Educational Research (KNAER), Mathematics Knowledge Network (MKN). Our common goal is to organize evidence-based professional practice to support improved educational achievement, in line with the Ministry of Education's Renewed Mathematics Strategy. This PLC promotes professional learning opportunities for classroom teachers to engage with and unpack educational research. Our collaborative inquiry team is supported by research, which allows us to transfer the content learned and the pedagogy directly to classroom teachers, making them our most valuable frontline mathematical leaders. This model bridges the gap between research, policy and practice, by building real capacity in teachers and in turn impacting student achievement.



## Interleaving Mathematics Curriculum at HWDSB

Our PLC includes kindergarten, elementary and secondary teachers. Through high quality, academic literature we investigate how to strengthen teaching and learning of the mathematics curriculum and processes. Our teacher-driven team has accessed academic literature to investigate how spiralling or interleaving the Ontario Curriculum will increase mathematical creativity in students as defined by Torrance (1974) in the following four areas:

1. **Fluency** (the continuity of ideas, flow of associations);
2. **Flexibility** (associated with changing ideas, approaching problems in various ways and producing a variety of solutions);
3. **Originality** (characterized by a unique way of thinking and unique products of a mental or an artistic activity); and,
4. **Elaboration** (the ability to describe, illuminate and generalize the ideas; Lev-Zamir & Leikin, 2012, p. 296).

## Measuring Success

Our PLC has also partnered with People for Education's Measuring What Matters project to explore planning, teaching and assessing creativity in mathematics learning across K-12 through a spiralled curricular process. Measuring What Matters is a multi-year initiative that has partnered with scholars, policy makers, and practitioners to create a set of K-12 competencies within creativity, social-emotional learning, health, and citizenship. These competencies are educationally useful and reflect the skills and competencies students will need for success in school and life. Our action research team will use relevant Measuring What Matters competencies to inform our use of math curriculum in relation to planning, teaching, and assessment in mathematics. The project will explore how to capture evidence of student creativity in mathematics as well as how to provide a framework through which we might share our findings.

## Partner Educators:

Christa Bailey, Millgrove Elementary, FDK  
Carissa Bender, Memorial City Elementary, Grade 7/8  
Alison Boehme, Cootes Paradise Elementary, Grade 5

Teri Lantange, Strathcona Elementary, Grade 3/4  
Jen Rimnyak, Westdale Secondary, Grade 9-12  
Toby Van Harten, Westmount Secondary, Grade 9-12



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