K-12 Mathematics

in the Richmond School District **June 2020**

BC's Redesigned Curriculum

The 2018-2019 school year marked the fourth year of full use of BC's K-9 mathematics curriculum. New aspects of the mathematics curriculum include a focus on the processes of mathematics through the curricular competencies, contextualizing mathematical experiences in place, community and culture, planning with mathematical big ideas in mind, financial literacy and an enhanced focus on computational fluency.
The **K-9 Mathematics** curriculum framework can be found on the BC Ministry of Education website here:
https://curriculum.gov.bc.ca/curriculum/mathematics

Grade 10 Mathematics courses (Workplace Mathematics 10; Foundations of Mathematics and Pre-Calculus 10) began full implementation in September 2018. The curriculum framework for these courses including big ideas, curricular competencies and curricular content can be found here:
https://curriculum.gov.bc.ca/curriculum/mathematics/10/courses

Grades 11 and 12 Mathematics courses were implemented in September 2019. The curriculum frameworks for the new Grades 11 and 12 courses can be found here:

Grade 11

Computer Science 11
Foundations of Mathematics 11
History of Mathematics 11
Pre-Calculus 11
Workplace Mathematics 11

https://curriculum.gov.bc.ca/curriculum/mathematics/11/courses

Grade 12

Apprenticeship Mathematics 12
Calculus 12
Computer Science 12
Foundations of Mathematics 12
Geometry 12
Pre-Calculus 12
Statistics 12

https://curriculum.gov.bc.ca/curriculum/mathematics/12/courses

In the Richmond School District…

Math Mentor Teachers

We have a small group of Richmond teachers serving as math mentor teachers in our district. They are available to facilitate professional learning experiences, to meet and plan with teachers or for teachers to visit their classrooms. Please contact Janice Novakowski for more information.

Graduation Numeracy Assessment

Secondary school students took part in BC Graduation Numeracy Assessment (GNA) during the 2019-20 school year. The assessment has been re-named the BC Grade 10 Numeracy Assessment as most students are required to write it for the first time while they are in grade 10. Passing the assessment (receiving a score of 1 or higher on a scale from 0-4) is part of the new BC graduation requirements. The assessment is not connected to a specific mathematics course and assesses students' numeracy – the ability to apply mathematics in contextual situations. Information for teachers, students and families and sample assessment questions can be found here:
https://curriculum.gov.bc.ca/assessment/grade-10-numeracy-assessment
This year, in collaboration with Shaheen Musani, we have continued to coordinate a GNA working group with secondary mathematics teachers to co-create and curate numeracy tasks to be used in Richmond schools.

Intermediate Numeracy Working Group

In support of a district focus on K-12 Numeracy, this year Shaheen Musani and I coordinated in Intermediate Numeracy Working Group for which we brought together grades 5-7 classroom teachers to deepen our understanding together of what numeracy is and develop numeracy tasks connected to intermediate level mathematics. Many of these tasks were further developed in the grades 5&6&7 class at Quilchena Elementary. Blog posts about these intermediate numeracy tasks can be found here:
https://blogs.sd38.bc.ca/sd38mathandscience/?s=intermediate+numeracy+project

Elementary Math Focus Afternoon

This year, Richmond hosted an elementary math focus afternoon on January 27 2020 at McNeely Elementary. Staffs from six schools with a math focus or a professional interest in mathematics came together to hear about district and school-based projects and attend sessions facilitated by Richmond teachers. Resources from the afternoon are in a folder in the documents section of the math site on the district portal.

Elementary Administrators Presentation

In January 2020, I was invited to share current information with Richmond's elementary administrators about the BC mathematics curriculum and initiatives in our school district. I shared information about numeracy, curricular projects, learning resources and the Math Play Space.

Math Play Space

This school year, our district's Math Play Space popped up and several school and community locations to encourage families to do math together and to learn more about the BC curriculum. A blog post sharing photographs from this year's events can be found here: https://blogs.sd38.bc.ca/sd38mathandscience/2020/06/20/sd38-math-play-space-2019-2020/
A web page with more information can be found here: http://bit.ly/sd38math

K-7 Reggio-Inspired Mathematics Project

Richmond is one of ten districts participating in a provincial cross-district collaborative professional inquiry project looking at how Reggio-inspired principles and practices can enhance the teaching and learning of mathematics. Teachers involved in this project meet and learn with colleagues at both the district and cross-district levels.

The Studio at Grauer Elementary

To support the big ideas of the BC mathematics curriculum and to consider flexible learning environments, Marie Thom and Janice set up a classroom at Grauer Elementary in January 2017 and it is has continued to grow in its scope. K-7 classes from Grauer as well as other Richmond schools (on math field trips) visit The Studio to engage in thinking about the big ideas in mathematics through materials and projects. Teachers from Richmond and other districts also visit The Studio to engage in professional learning and planning.

Afterschool Big Mathematics Ideas Professional Learning Series

This year we hosted afterschool professional learning series for K-2, 3-5 and 6-9 teachers. These afterschool series look at the big mathematical ideas specifically focusing on foundational concepts and developing computational fluency. Woven into these sessions are key aspects of the redesigned curriculum framework in mathematics including inclusive teaching and learning practices, formative assessment and the core and curricular competencies.

Math For Action

In March, secondary colleagues Shaheen Musani, Baren Tsui and I launched a new professional learning series for secondary teams that focused on using mathematics to investigate social issues to inspire student agency and change. We shared ways to develop numeracy across curricular areas through tasks and projects and hope to continue this series in a new format in the fall.

Box Cars Math Games Workshop

On January 8 2020 we hosted Jane Felling of Box Cars and One-Eyed Jacks for a math game workshop for K-2 teachers. The DRC has purchased kits of dice and games books to be borrowed by teachers for use in their classrooms.

Richmond School District K-12 Mathematics Blog
A district blog is maintained to share what is happening in the areas of mathematics and other curriculum projects in the Richmond School District. The blog address is:
http://blogs.sd38.bc.ca/sd38mathandscience/

If you have anything you would like to submit to be posted on the blog, please email information and photos to Janice at jnovakowski@sd38.bc.ca

Richmond School District Mathematics Site on the Portal
The district's mathematics site on the portal can be found in the curricular areas section of Learn38. Information about upcoming events, featured stories, curriculum documents, information and links to instructional resources are posted here.
https://portal.sd38.bc.ca/learn38/mathematics/Pages/default.aspx

Continuity of Learning (April-June 2020)

In response to the COVID-19 global pandemic, in-school instruction was suspended in BC schools after spring break. Teachers provided remote learning opportunities for students. As of June 1, about 30% of Richmond's K-12 students attended schools part-time for in-school instruction following public health guidelines. During this time, K-7 weekly math plans, grades 8-9 interdisciplinary numeracy plans, K-12 interdisciplinary projects, math games and other resources were created and posted for teacher and family use.
The continuity of learning mathematics and numeracy page can be found here:
https://portal.sd38.bc.ca/group/6qxuojz/Pages/default.aspx#/=

Math at Home
During this spring a new public site on the portal was created for families and caregivers to access to find information about ideas for doing math at home with their children. The site includes photo albums of photos submitted by SD38 families sharing the math projects they did at home with their children.
https://bit.ly/SD38mathathome

As new information is provided as to how teaching and learning will be experienced in the next school year, I will share updates and resources on the portal, district blog, Instagram (@jnovakowski) and Twitter (@jnovakowski38).

~Janice

A bulletin with professional learning opportunities in mathematics for 2020-21 will be posted in September!

compiled by jnovakowski/june2020