



Memorandum

To: Mr. Casey Morrisroe, Chair of the Board of Trustees
Dr. Steve Cook, Superintendent

From: Dr. Mike Nelson, Director of Curriculum & Assessments
Dr. Trina C. Caudle, Director of Secondary Education

Date: September 21, 2018

Re: High School Math/Geometry

Thank you for the opportunity to investigate and respond to concerns regarding the implementation of Geometry curriculum at Coeur d'Alene High School. Below you will find a summary of our conclusions as well as a plan to improve compliance with district policies and procedures, and ultimately the quality of mathematics instruction for all secondary students. In order to ensure we are meeting individual student needs, we will be closely monitoring student achievement, growth and the quality of instruction with the following commitments:

- Common Assessments (local and nationally-normed)
- Quality Instructional Materials
- Ongoing Professional Development
- Increased Communication with Students, Parents, Staff, the Community, and the Board of Trustees

Summary of Events

- During the spring of 2017, Mike Nelson and Ryan Gillespie presented to the board, over the course of several meetings, a request to approve the shift from the "traditional" Algebra I > Geometry > Algebra II sequence to an "integrated" Math 1 > Math 2 > Math 3 sequence. The Board did not approve this request and directed the administration to include more community involvement and planning.
- During the spring of 2017, between a series of presentations to the board, Ryan Gillespie, Mike Nelson and Trina Caudle met to discuss how to improve math achievement if the Integrated Math pathway was not approved. We are unsure of the exact date this occurred. The discussion included *Minds on Math* professional development through PEBC and what curricular shifts we could make within policy 2100 and procedure 2100P to allow for space and time to provide more focus on essential concepts. When the request was denied, Ryan Gillespie and Adam Hanan, CHS Math Chair, moved forward to adjust the Algebra I curriculum within the guidelines of Board Procedure 2100P and with Mike and Trina's approval.
- During the spring and summer the district office was experiencing major changes with the departure of Matt Handelman, the search and installation of an Interim Superintendent, and the search for a Director of Operations. Trina Caudle was Acting Superintendent and Director of Secondary Education. Neither Trina nor Mike circled back to follow up with Coeur d'Alene High School regarding the curricular changes. Discussion of a Coeur d'Alene High School Algebra pilot with Geometry infusions did not re-emerge until the *ad hoc* committee meeting on February 15, 2018.
- Coeur d'Alene High School began the 2017-18 school year with what they called an "Algebra I pilot". The pilot was also referred to as Algebra I with Geometry infusions. Lake City and Venture high schools did not participate in the pilot. During the *ad hoc* committee meetings, there was disagreement between the meaning of the terms "infusion" and "pilot." There was also confusion between what types of curricular changes were allowed by procedure 2100P and what constituted a board approved pilot.
- During a special board meeting on Monday, April 16, 2018 Mike Nelson and Trina Caudle presented the recommendation of the *ad hoc* committee. A minority report was submitted prior to the meeting. The recommendation included a request to approve the Integrated Math 1 Course and to approve an Integrated Math 1 Implementation Plan. The plan did include Math 2 and Math 3 implementation steps for upcoming years. The board only approved the Integrated Math 1 course and the Math 1 Implementation Plan with the request for monthly updates. Work towards implementation plan action items began in April and picked up again in August.
- On May 29th, Adam Hanan, CHS Math Chair, emailed Trina Caudle, copying Libbi Keyes, Ryan Gillespie and Mike Nelson. In the email Adam was requesting guidance on how to handle Geometry courses for students who took the Algebra I pilot. They were pre-planning for the 2018-19 school year and were considering two options. One option was a 50% change in the Geometry course and the other option was to change as little as possible, addressing needs as they arise. Trina responded, if they changed more than policy allowed, they would need to seek board approval for a pilot. After the email, there was no other communication between the school and the district office regarding Geometry curriculum changes.

- During the first week of school of the 2018-19 school year, it came to our attention that a Coeur d'Alene High School math teacher handed out Math 2 learning targets to his ALP Geometry students and parents. Under the direction of the superintendent and with the cooperation building administration, we conducted an investigation of all geometry classes throughout the district.

Findings

- One teacher at Coeur d'Alene High School chose to provide the draft Math 2 scope and sequence to ALP Geometry parents and students on the first days of classes. Math 2 is not a board approved course.
- Two teachers at Coeur d'Alene High School provided students and parents with a Geometry Course Syllabus containing a list of both Algebra and Geometry learning targets.
- One teacher at Coeur d'Alene High School did not provide any learning targets on the Geometry Course Syllabus.
- Geometry teachers at Coeur d'Alene High School collaborated to alter the Geometry course learning targets to include Algebra I concepts not taught during the Math 1 pilot, integrate a few Algebra II targets, and reduce non-essential Geometry targets.
- The teachers believed the change to be within the 25% allowed by procedure. They used the number of learning targets changed as their measure to calculate the 25%. When one calculates the changes based on learning targets and the time spent on those targets over the course of the year, the curriculum change is closer to 33%.
- The Coeur d'Alene High School Geometry teachers believed they had permission to make adjustments, if they followed Procedure 2100P.
- Elements of Policy 2100 and Procedure 2100P are in conflict. Elements of Procedure 2100P are also unclear on what constitutes 25% of the curriculum. Procedure 2100P is also in conflict with the best practice of implementing a guaranteed and viable curriculum system-wide.
- Currently, there are 522 students enrolled district-wide in Geometry and ALP Geometry combined. Two hundred twenty four (224) or 42.91% of those students were involved in the modified Algebra 1 course at Coeur d'Alene High School this past year. Coeur d'Alene High School students not involved in the modified Algebra 1 course took ALP 8th Grade Math or Algebra 1 at another school or district.
- Communication breakdowns for various reasons between the district office, building administration and math staff the prior year, last May and over the summer were contributing factors.

Action Taken

- Syllabi from all mathematics courses in the district have been collected to isolate the problem.
- Concerns have been discussed with Coeur d'Alene High School Geometry teachers and administration.
- Parents/guardians of students in Geometry and ALP Geometry at Coeur d'Alene High School have been notified of the issue and will be updated with any changes.
- Board Policy 2100 and Procedure 2100P is in the process of being scrutinized and amended for better alignment and reflection of board values and best practices.
- An internal Math 1 Pre-Assessment was administered to all Math 1 and ALP Math 8 students last week. Pre-Assessment data will be compiled and shared with the Board at the October 1st regular meeting.
- Bret Heller, CHS Principal, has taken appropriate action with specific staff members.

Next Steps

- We have contracted with [Northwest Evaluation Association](#) and will be providing a nationally-normed assessment to identify gaps in instruction for all students in Math 1, ALP Math 1, Geometry, ALP Geometry, and Algebra 2 courses (1900 students). We are also evaluating the appropriateness of these assessments for Boost courses.
 - These assessments include a diagnostic, offered three times a year as well as [monthly growth checks](#).
 - Teachers will be collaborating around both internal assessment data and NWEA data to remediate any gaps. Additional professional development and resources will be provided as needed.
 - We will develop and provide opportunities for parents, patrons and board members to learn about these assessments. Summary results of individual schools and the district as a whole will also be made available.
- We are rewriting course pacing guides for Geometry and ALP Geometry to include knowledge and skills that may have been excluded from the modified Algebra 1 course for Coeur d'Alene High School. Pacing guides will be communicated to parents, patrons and the board. They will also be made available on our district web-page and course syllabi.

- All students in grades 09-11 will take the nationally-normed PSAT on October 10th; results will be available in early December. PSAT results will be presented to the board and made available to patrons. Schools will share individual results with students and parents. Counselors and College Career Advisors will conduct informational nights and meet with students and parents individually as needed to assist in interpreting results to inform student secondary and post-secondary plans.
- We have reached out to several organizations, including the Idaho Regional Math Center at Idaho State University in Pocatello, to perform an external audit of content, materials, and assessments for Geometry and ALP Geometry.
 - This is in addition to the potential vendors for the curriculum audit, expected to be presented in the consent agenda at the November regular meeting of the Board of Trustees.
 - Results of the external Math Center audit will also be communicated to all parents of Geometry and ALP Geometry students in the district. Results will also be made readily available for interested patrons.
- The Request for Proposal for a curriculum audit will be out shortly. The audit is expected to identify gaps in content throughout the district for all levels and content areas. We should have initial findings at the beginning of January. Findings will be presented to the board to identify areas of change and future focus.
- We will continue to communicate our progress with parents, the community and the Board of Trustees through email, newsletters, informational events for parents, the weekly board memo and selected regular board meetings.
- We will collaborate with the Superintendent and Director of Elementary Education to develop a long-term plan to follow up and improve on grading practices and feedback of student work across the system (KG-12). This plan will include avenues of ongoing communication with students, parents, patrons and the board.
- We will request approval of the board to reconstitute and task the Math *ad hoc* Committee to address the Math 2 course and present recommendations to the board in March.

Below is a table summarizing our draft timeline of action items to include assessments and presentations to the board.

Date(s)	Item	Additional Info
Sept. 10th - 14th	Math 1 Pre-Assessment Window	ALP 8th Grade Math & Math 1
October 1st	Regular Board Meeting	<ul style="list-style-type: none"> • Math 1 Update & Pre-Assessment Results • Policy 2100 and Procedure 2100P
October 10th	PSAT	9th, 10th and 11th Grades
Oct. 1st - 19th	NWEA Needs Assessment Window	Math 1, ALP Math 1, Geometry, ALP Geometry, Algebra II
Oct. 22nd - 26th	Checkpoint 1 Assessment Window	ALP 8th Grade Math & Math 1
November 1st	Regular Board Meeting	<ul style="list-style-type: none"> • Math 1 Update, NWEA Results, Checkpoint Assessment Results • Curriculum Audit
Nov. 19th - 20th	Checkpoint 2 Assessment Window	ALP 8th Grade Math & Math 1
Dec. 3rd or Jan. 7th	Regular Board Meeting	PSAT Results
Jan. 22nd - 25th	EOCAs & NWEA Interim Assessment Window	Math 1, ALP Math 1, Geometry, ALP Geometry, Algebra II
February 4th	Regular Board Meeting	EOCA & NWEA Assessment Results
Feb.25th - March 1st	Checkpoint 4 Assessment Window	ALP 8th Grade Math & Math 1
March 1st - 21st	NWEA Midterm Assessment	Math 1, ALP Math 1, Geometry, ALP Geometry, Algebra II
April 1st	Regular Board Meeting	NWEA Midterm Assessment Results
April 8th - 12th	Checkpoint 5 Assessment Window	ALP 8th Grade Math & Math 1
April 9th	School Day SAT	11th Grade
April 29th - May 3rd	Checkpoint 6 Assessment Window	ALP 8th Grade Math & Math 1

June 3rd	Regular Board Meeting	School Day SAT Results (if available)
June 3rd - 7th	EOCAs & NWEA Interim Assessment Window	Math 1, ALP Math 1, Geometry, ALP Geometry, Algebra II
July	Regular Board Meeting	EOCA & NWEA Assessment Results

We are glad to provide any additional information you may desire.