## Math Department Board Update - September 2018

In Spring 2015, we invested almost a quarter of a million dollars in Algebra 1, Geometry, and Algebra 2 textbooks that align with Common Core. Since the adoption of the new textbooks, math teachers have worked in course-specific PLCs to implement the new curriculum and differentiate instruction where necessary. All students in these courses have access to online resources provided by the publishers to complement the textbook. Students are able to focus on the particular lessons/sections in which they struggle. The Math Department continues to offer office hours and the Study Center continues to provide both peer and adult tutors to assist students outside of class time as well.

In addition to the textbook, we also provide each student in Algebra 1 through Math Analysis with access to IXL, an online platform that gives immediate feedback and adaptive practice on specific math skills. Teachers can assign IXL practice that is tailored for individual students or students can self-assess which skills they want to work on. We also use IXL in the Math Lab to insure students have practiced sufficiently before retaking a standards quiz.

For students who may need an alternative classroom environment, we have special sections with smaller class sizes designed to meet their needs. In collaboration with special education teachers, we have three classes where a math teacher and a special education teacher teamteach to make the general education math curriculum more accessible for students with IEPs. To support students who are at-risk of not meeting A-G requirements, this year we are also offering grade-level classes in Algebra 1, Geometry, and Algebra 2. These sections are intended for students in grades 10-12. In these classes, we are piloting the ALEKS program to track their skills and monitor their success. We continue to have off-track classes as well to allow students to make up credits right away.

To assist with differentiated instruction in the classrooms, PCHS has hired four full-time math paraprofessionals to provide additional support. These math paraprofessionals work individually or in small groups with students as teachers deem appropriate after assessing their students. They also work in the Math Lab during seventh period and after-school. They have even voluntarily tutored during Nutrition and Lunch. The results of the student survey we administered at the end of the fall semester last year indicate that both students and staff have benefitted from their presence in the classrooms. Their enthusiasm and effectiveness in helping and relating to students have made these math paraprofessionals an invaluable part of the Math Department.

PCHS provides the Math Department with various professional development opportunities ranging from attending workshops/conferences to supporting PLC planning and work to training for the whole department. Most recently, we met before the school year began at a Department Retreat on campus to discuss curriculum mapping, grading practices, math mindsets, etc. This year, we have a new administrator, Ms. Iannessa, who has been providing support and feedback to individual math teachers and guiding our entire department to continuously improve. We have also added several new math teachers to our staff over the past few years that have helped to re-invigorate our department as well.

Student Satisfaction Survey (from Columbia Survey)

| CLAIM | GRADE 9 | GRADE 10-12 |
| :--- | :---: | :---: |
| My teacher engages students during <br> class. | $82 \%$ | $77 \%$ |
| My teacher does as much as he/she <br> can to answer questions during class. | $86 \%$ | $80 \%$ |
| The homework load for this class is <br> manageable. | $86 \%$ | $80 \%$ |
| The homework for this class is <br> meaningful/helpful. | $83 \%$ | $79 \%$ |
| My teacher provides ample <br> opportunity for help outside of class. | $88 \%$ | $84 \%$ |
| I think the material we learn is useful <br> outside of school. | $71 \%$ | $83 \%$ |
| My teacher treats all students equally <br> and with respect. | $90 \%$ | $69 \%$ |
| I would recommend this teacher to <br> future students. | $75 \%$ |  |

According to the latest results from the Columbia Survey regarding Teacher Effectiveness by Subject, most students strongly agreed or agreed positively with the claims detailed in the table above. The lowest percentage was in the relevance of the material being useful outside of school while the highest percentage was the perception that students were treated equally and with respect. Despite these positive results, some parent feedback still called for improvement in teacher effectiveness and/or math instruction.

Because Mathematics is a focus for PCHS, we created the Math Success Task Force last spring. The Task Force is composed of students, parents, math teachers, coordinators, administration,
and community stakehodens. We met once a month to discuss strategies as to how to improve math instruction and achievement. Our discussions included renewed articulation with our feeder middle school, freshman testing and placements, parent feedback, and teacher effectiveness.

