

Duncan MacMillan High School
2015-16 Community Report

| Provincial Assessments | | |
|------------------------------------|-----------------------|----------------------|
| | School (%) 2015-16 | Board (%) 2015-16 |
| <u>Literacy Assessments</u> | | |
| Grade 8 Provincial | | |
| Reading | 69% | 76% |
| Writing - Ideas | 100% | 91% |
| Writing - Organization | 92% | 80% |
| Writing - Language Use | 88% | 82% |
| Writing - Conventions | 58% | 70% |
| Grade 10 Provincial | | |
| Reading | 69% | 78% |
| Writing - Ideas | 60% | 69% |
| Writing - Organization | 48% | 65% |
| Writing - Language Use | 60% | 65% |
| Writing - Conventions | 56% | 60% |
| <u>Math Assessments</u> | | |
| Grade 8 Provincial | | |
| Mathematics | 35% | 63% |
| Grade 10 Provincial | | |
| Mathematics | 33% | 72% |
| Mathematics At Work | 50% | 54% |

| Graduation Rates | |
|--------------------------------------|-------------|
| School Year | Rate |
| 2015-16 | 94% |
| Destination after High School | Rate |
| Community College | 47% |
| University | 24% |
| Other Education or Training | 12% |
| Join Workforce | 6% |
| Unknown | 9% |

Duncan MacMillan High School (DMHS) has completed year 2 of a five-year cycle of the Student Success Plan (SSP). When teachers learn, students learn. With this in mind, the primary focus of the teacher professional learning at DMHS this year, centered on five essential questions:

- **What do we want students to know or learn? (Learning Target/Goal)**
- **How does my classroom instruction need to change in order to meet students' needs?**
- **How will we know when they have learned it? (Success Criteria & Assessment)**
- **How will we respond when students experience difficulty or when they have already learned it?**
- **What are our students' strengths and challenges?**

Because of teachers' attention to these five critical/essential questions and because of collaboration in their respective Professional Learning Communities (PLCs), the teachers were able to focus on strategies to improve student learning, to pause and reflect on classroom post-observation feedback which has given way to a deeper culture of inquiry within the school. It was through this work, along with PLC time for literacy and numeracy, that we were able to develop shared approaches and common language in an effort to align practice in our identified areas of reading comprehension and critical thinking. This work informs our direction and enables us to identify and address what we need to do next in service of our students. Through purposeful reflection of daily teaching practice, teachers will be able to determine how to move forward in the SSP process.

Literacy

The literacy goal at Duncan MacMillan High School is to improve students' reading comprehension skills, with a focus on critical thinking. Last year's provincial assessment results indicated that students at DMHS fell below Halifax Regional School Board standards. On the provincial assessment 69% of grade 8 students met the reading expectations (compared to 76% of grade 8 students in the board). In addition, 69% of grade 10 students met the provincial assessment reading expectations (compared to 78% of grade 10 students in the board).

With these results at the forefront, teachers at Duncan MacMillan High School used a variety of strategies to help our students become better readers and critical thinkers. Professional development (PD) was provided to all staff, as an opportunity to discuss, share, and learn more about best practices in reading comprehension. In particular, English teachers, through collaboration with Melissa Trenbirth, HRSB literacy consultant, focused on the Reader's Workshop model to vary and individualize instruction based on students' needs. Teachers also examined different levels of questioning being used in the classroom, to ensure that students were provided with opportunity to practice their higher order thinking skills on a regular basis.

During the 2015-2016 school year, teachers continued to focus on assessment throughout the school year. They used classroom assessment to inform their practice, vary their instruction, and plan accordingly, based on what students needed in terms of reading comprehension and critical thinking skills. Feedback became more timely and specific to each student. In addition to classroom-based data, other pieces of assessment were also examined throughout the year. These included provincial assessment results and data collected specifically for our school's literacy goal. As a result of examining how students did on a variety of assessments, and their continued need for support to understand text and respond to it critically, interventions were planned and students were monitored by their teachers. The literacy PLC also worked diligently to plan learning activities that engage all students in critical thinking. In June, the entire student body participated in an Amazing Race, where students had the opportunity to collaborate with their peers and put their critical thinking skills to work.

As a result of our literacy goal, both instructional and assessment practices have become more individualized. Teachers meet weekly as a professional learning community (PLC). The PLC provides them with an opportunity to share students' work, effective reading comprehension strategies, and seek support from other teachers. Based on our school's current assessment results, our PLC plan for the 2016-2017 school year has become more focused. Each month, 3 PLC meetings are being dedicated to examining students' results. These results include, but are not limited to the following: classroom assessments, provincial assessment results, and in-house data shared from our feeder schools. Tracking forms have been created for each student at Duncan MacMillan High School. These forms, which are completed during PLC meetings, include individual students' strengths and challenges, trends in data examined, interventions planned by teachers, and monitoring of new strategies employed. As a result, instructional practices have become more targeted and specific in terms of skills teachers are seeking to develop and reinforce with their students. Assessment practices and feedback have shifted to become

more individualized. Students receive feedback specific to their own strengths and challenges, not to those of the class as a whole. Conferencing has become a more frequent means of assessing students and enables teachers to really know what students need in order to become better readers. In addition, one PLC meeting a month has been dedicated to professional development opportunities. The topics of these professional development opportunities are determined by teachers' instructional and assessment needs, as well as students' results.

Looking forward, the literacy PLC has committed to a continued focus on reading, as outlined in our Student Success Plan. With that said, based on our school's current writing results, we recognize that we must also focus on developing our students' written abilities.

Math

The math goal at Duncan MacMillan High School is to improve student achievement in mathematical problem solving. The results of last year's provincial assessment indicated that the percentage of students at DMHS meeting expectations is lower than the board average. At the grade 8 level, 35% of the students met the expectations in math compared with 63% for the board. For students in grade 10 academic math, 33% of the students met the expectations compared with 72% for the board. For Math at Work 10 students, 50% met expectations compared to 54% for the board. Although students at DMHS fell below board standards, all math assessments showed an increase of students meeting the expectations ranging from a 10% to 19% increase.

These results provided clear evidence of the need for math teachers to engage in continual professional development to ensure their teaching is aligned with classroom best practices. HRSB math consultant, Erick Lee provided much guidance and direction, starting with the development of a common rubric to assess problem solving across grade levels. This led to a common understanding of problem solving among teachers and increased consistency among teachers when assessing it. Teachers also increased their knowledge of the different strategies and skills necessary for effective problem solving and passed them on to students during direct classroom instruction. In addition, the math department led a school wide PD session on how non-math teachers can further support the development of problem solving skills with students in their own classes. Math teachers also engaged in PD around interactive technology and how it can be used in the classroom to support the development of problem solving skills. For example, students learned how to use an app called "ShowMe" to make their own math tutorial videos. A book study on effective teaching strategies and several articles on effective instruction in the mathematics classroom were also part of the PD covered throughout the year.

The continual PD that math teachers engaged in this year has had a major impact on classroom instruction and assessment practices. To begin, typical mental math activities that mainly require students to perform a mental computation were replaced with problem solving activities that require the use of computational skills and problem solving skills together. For example, teachers would have students look at a picture and respond to various questions or to even pose their own questions and then find the answers. These types of activities increased student engagement as they allowed for students to participate on their own level while still developing problem solving skills. Over the course of the school year, teachers' focus on developing problem solving skills increased and they spent an increasing amount of time implementing problem solving activities that engaged students as they worked through problems.

In terms of assessment practices, the math department used more variety in assessing student learning. In particular, short probes, in-class assignments and student conferencing became increasingly important tools in determining the extent to which students had met learning goals. Data from students' assessments was tracked in a spreadsheet and the information was used to adapt planning on both an individual and class level. The data was also used to provide feedback that was more student-specific. Provincial

assessment results for DMHS were also used by math teachers to inform instruction and develop appropriate interventions to support students.

The current math goal for DMHS provided focus and direction for the math department this year in instructional practices, assessment practices and weekly professional learning community (PLC) meetings. Math teachers met once a week, where they discussed the introduction of posted learning goals in lesson planning. Learning goals allowed math teachers to discuss the target of the day with students and have students take part in conversations about the learning. The math department observed that due to learning goals, students were able to communicate what they were learning. PLC meetings have also played a key role in helping teachers to use more variety in how they assess student achievement and to provide feedback that is more individualized. Math teachers focused on effective feedback. Teachers conferenced with students and also gave descriptive feedback on assessments rather than the traditional “good job”, “show work”. Teachers also started to use the phrase “show your thinking” as encouragement to students. Effective feedback contributed to an improvement in the quality of student work, especially with process questions, which was noted in our assessment data.

Next year, the math PLC will continue to focus on the development of students’ ability in problem solving. As part of this, math teachers will continue to engage in PD around effective mathematics instruction and will increase the integration of technology into the classroom to enhance students’ development in problem solving and overall learning and engagement. Teachers will also use a constructivist approach, where students construct their knowledge as learners as they attempt to make sense of their experiences. Math teachers will also continue to collect data to track students’ progress in problem solving, both individually and as a class, and use the data to inform next steps in planning so as to provide feedback and instruction that is not only appropriate, but increasingly individualized.

During the 2016-2017 school year, teachers at DMHS teachers will remain anchored to lesson planning, inclusive of the essential components, as they plan for rigor steeped in the learning outcomes for each **individual** student.