



Goal Setting
Overall Goal: 67% of students, as measured by our focus students, will move at least one strategy along Lawson’s continua of number development. All educators will work towards meeting at least one look for we have established as a school in utilizing learning goals and success criteria.

Needs Assessment / Where Are We Now?

Percentage of all students at or above the provincial standard (level 3 and 4) over time.

| Grade 9 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 |
|----------|---------|---------|---------|---------|---------|
| Applied | 88 | 79 | 73 | 66 | 78 |
| Academic | 94 | 99 | 96 | 93 | 94 |

Theory of Action: Due October 12, 2018

If we create engaging learning experiences through a focus on student voice and action and improve assessment and feedback practices through a focus on identifying and using learning goals and success criteria then student engagement and achievement will improve as measured by monitoring our focus students.

Success criteria for engaging learning experiences:

I can see and hear authentic learning experiences

- Real-life connections
- Learning is student-focused and has connections to student lives
- Community connections – extensions and partnerships inside and outside of classroom
- Students providing input into the learning experience
- Students are curious, creative and thinking critically

‘Look Fors’

I can see and hear assessment and feedback practices

- Teachers and students using co-constructed learning goals, success criteria and anchor charts
- Teachers and students asking questions and giving feedback connected to the success criteria
- Noticing and naming
- Evidence of student learning visible

I can see and hear discourse along with independent think time

- Thinking out loud and building on the ideas of others
- Positive student dialogue and student voice (“I think this because...”)

Success Criteria for identifying and using learning goals and success criteria

- I can see and hear classroom discourse.
- I can see and hear purposeful planning.
- I can see the learning goal and see and hear interaction with the co-constructed success criteria.
- I can see and hear intentional gathering of documentation based on the success criteria.
- I can use documentation to monitor student progress and the effectiveness of my instructional practices.

DATA:
Monitoring the IF:
 Based on the *co-constructed success criteria* for educator learning. (e.g. criteria for providing effective descriptive feedback)

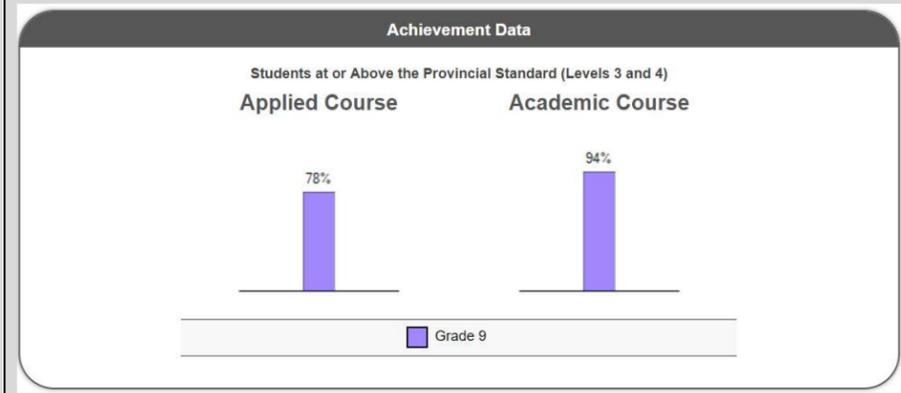
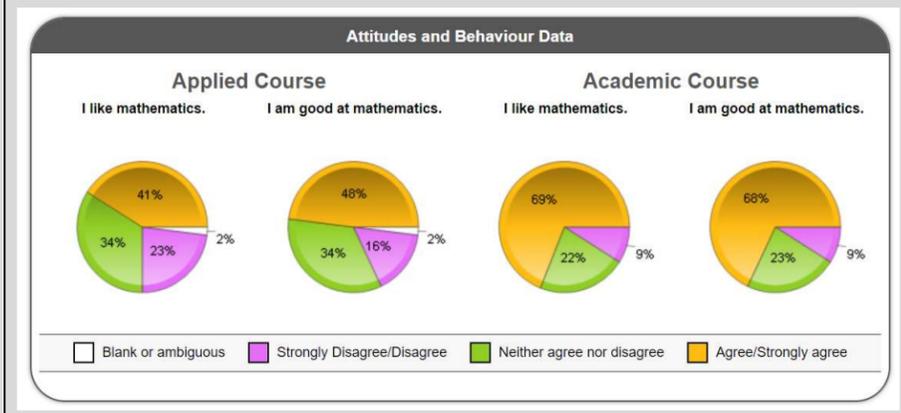
Monitoring the THEN:
 Based on the *co-constructed success criteria* for the pre, mid and post assessments of student learning (e.g success criteria for number fluency)

SAMPLES:

| | Direct Modelling and Counting | Counting more efficiently and Tracking | Working with numbers | | | | Proficiency | | | | | | | | | | | | |
|------|-------------------------------|--|-------------------------------------|-------------|------------------|---------------|-----------------|---------|----------------------------|-----------|-------------|----------|----------------|------------------|-----------------------|-------------------|---------------------|---------------------|-------------------|
| | Subitizing | Counting all | Modeling (one and counting by ones) | For sharing | Counting by ones | Skip counting | Place and value | Rolling | Reversed order subtraction | Using 100 | Ratio table | Using 10 | Familiar facts | Partial products | Recalling basic facts | Partial quotients | Automatic retrieval | Standard algorithms | Strategic methods |
| PRE | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| POST | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |

| | Grade 1/2 | November | December | February |
|----------|----------------|----------|----------|----------|
| Join | Result Unknown | 73 | 83 | 73 |
| | Change Unknown | 60 | 61 | 60 |
| | Start Unknown | 53 | 67 | 53 |
| Separate | Result Unknown | 59 | 92 | |
| | Change Unknown | 44 | 92 | 50 |
| | Start Unknown | | 67 | |

PRE: QUANTITATIVE EVIDENCE – DUE: October 12, 2018



- 2 Intermediate teachers, teaching grade 7 and grade 8, 2 High School teachers, teaching grade 9 applied and academic math, administration comprise the math learning team
- 3 focus students have been identified by each teacher

MID: QUANTITATIVE EVIDENCE – DUE: November 16, 2018

- Lawson’s Continua:
- 3 educators on the learning team, 3 focus students each, all focus students are in the “Working with Numbers” phase or the “Proficiency” phase.
 - One student who was not able to use an algebraic strategy effectively (was using guess and check) in the pre-assessment is now able to use a more automatic strategy, using alternative or standard algorithm in the “proficiency” phase effectively.

- Engaging Learning Experiences
- All NGDHS staff worked collaboratively on the PD day to purposely plan assessment tasks based on numeracy related curriculum expectations in their subject area. Teachers are continuing to use vertical wall spaces, manipulatives, and authentic learning tasks.

- Generating Descriptive Feedback Practices
- 100% of our staff are engaged in tracking evidence of student learning for numeracy and literacy. All educators have picked three focus students to monitor using the learning cycle template and student work.
 - All teachers on the learning team are noticing and naming number strategies.

- Walk Through Observations:
- All numeracy learning team teachers are beginning to use learning goals, success criteria for major assignments.
 - All of the numeracy learning team teachers are using triangulation of data – observation, conversation and product – to assess student learning and bringing student work, to the math team meetings.

POST: QUANTITATIVE EVIDENCE – DUE: February 8, 2019

| | | | |
|--|--|--|---|
| | <p>QUALITATIVE ANECDOTES – DUE: October 12, 2018</p> <ul style="list-style-type: none"> • Student pre-assessment data shows that reading math problems for meaning is an area for improvement. • Teachers and administration have participated in Foundations of Math day#1 and reviewed the Student Continuum of Numeracy development: Addition and Subtraction, Multiplication and Division | <p>QUALITATIVE ANECDOTES – DUE: November 16, 2018</p> <ul style="list-style-type: none"> • As observed in grade 8 Math, MFM1P and MPM1D students can often come up with answers but are not as readily able to explain the steps involved or to explain their thinking or make sequencing errors. An example was a marker student in grade 8 that was unable to place a variable into an equation but had many of the correct elements from the question. (e.) what is Angela’s age if in 3 years she will be 16? Student: $16 + 3 = 19$ • The crafting of effective pre-assessment tools is recognized as an important skill to develop. • Teachers are gaining a better understanding of the Key Ideas and Strategies from Lawson’s Continuum and shifting the focus towards naming and noticing student’s current strategies, with a focus on intentional instructional moves, to have students use a more efficient method. | <p>QUALITATIVE ANECDOTES – DUE: February 8, 2019</p> |
| | <p>ACT – DUE: October 12, 2018</p> <ul style="list-style-type: none"> • The learning team is developing an observation tool that will allow us to plot our focus students on the continuum. • Develop a monitoring plan to be used by our Learning Team. • Collaboratively discuss the strategies. Anticipate the ways students might solve the prompts. Discuss what strategies they would be using. • Collaboratively look at student videos/photos of work/observations of their thinking to notice and name the strategies our students are using. • Use the monitoring template to plan where we want our students to go next (what strategy on the continuum.) • Determine the criteria the student(s) need to know to move their learning and our intentional teacher moves we will make to move the learners along the continuum. • Use our criteria to give descriptive feedback to our students. • Initiate number talks and notice & name the strategies. • Build student understanding of the strategies and their ability to notice & name them. • Share student work/thinking and strategies used. • Discuss efficiency when comparing/contrasting solutions. Pointing out that a strategy might be efficient with one question and not efficient with another. • Modelling of a particular strategy for students by peers or teacher. • Initiate a book study using <i>Knowing What Counts: Setting and Using Criteria</i> by Gregory, Cameron, and Davies. | <p>ASSESS – DUE: November 16, 2018 & February 8, 2019</p> <ul style="list-style-type: none"> • Through monitoring of pre-assessment tasks of marker students in grade 9 math classes we have identified students who will need more intensive support to better achieve the provincial standard on the EQAO. • Students will be working in small groups with a math specialist on more proficient strategies from Lawson’s Continua. | <p>REFLECT – DUE: November 16, 2018 & February 8, 2019</p> |

- Plan P/VP walk throughs and follow-up conversations, as well as surveys, to determine the current state of use of meaningful descriptive feedback and plan professional learning experiences in response to discoveries made.
- Collaboratively analyze EQAO questions that last year's students did poorly on. Anticipate how our current students will solve the problem, choose some prompts to give as pre/post tasks to our students. Collaboratively analyze the work of our focus students and plan intentional next steps.

2nd CYCLE OF INQUIRY

Theory of Action: Due February 15, 2019

If we create engaging learning experiences through a focus on [Choose a learning experience focus](#) and improve assessment and feedback practices through a focus on [Choose an assessment loop focus](#) then student engagement and achievement will improve as measured by monitoring our focus students.

Success criteria for engaging learning experiences:

- I can see and hear authentic learning experiences*
- I can see and hear assessment and feedback practices*
- I can see and hear student-centered learning*
- I can see and hear students using resources with intention*
- I can see and hear educators as responsive facilitators*
- I can see and hear Collaboration*
- I can see and hear purposeful planning*
- I can see and hear discourse along with independent think time*
- I can see and hear wellness*

'Look Fors'

Success Criteria for Choose an item.

If we create engaging learning experiences through a focus on [Choose a learning experience focus](#) and improve assessment and feedback practices through a focus on [Choose an assessment loop focus](#) then student engagement and achievement will improve as measured by monitoring our focus students.

| | | | |
|---|---|--|---|
| <p>DATA: Monitoring the IF: <i>Based on the co-constructed success criteria for educator learning. (e.g. criteria for providing effective descriptive feedback)</i></p> <p>Monitoring the THEN: <i>Based on the co-constructed success criteria for the pre, mid and post assessments of student learning (e.g success criteria for number fluency)</i></p> <p>SAMPLES:</p> | <p>PRE: QUANTITATIVE EVIDENCE – DUE: February 15, 2019</p> | <p>MID: QUANTITATIVE EVIDENCE – DUE: April 12, 2019</p> | <p>POST: QUANTITATIVE EVIDENCE – DUE: May 31, 2019</p> |
| | <p>QUALITATIVE ANECDOTES – DUE: February 15, 2019</p> | <p>QUALITATIVE ANECDOTES – DUE: April 12, 2019</p> | <p>QUALITATIVE ANECDOTES – DUE: May 31, 2019</p> |

| Skill/Item | Direct Modelling and Counting | | | Counting more efficiently and Tracking | | | Working with numbers | | | | | | Proficiency | | | |
|------------|-------------------------------|-------------------------------|------------------|--|------------------|------------------|----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | Counting all | Modeling and counting by ones | Counting by ones | Counting by tens | Counting by tens | Counting by tens | Using counting | Using skip counting | Using skip counting | Using skip counting | Using skip counting | Using skip counting | Using skip counting | Using skip counting | Using skip counting | Using skip counting |
| PRE | //// | //// | //// | //// | //// | //// | //// | //// | //// | //// | //// | //// | //// | //// | //// | //// |
| POST | //// | //// | //// | //// | //// | //// | //// | //// | //// | //// | //// | //// | //// | //// | //// | //// |

| | Grade 1/2 | November | | December | | February | |
|----------|----------------|----------|----|----------|----|----------|----|
| | Grade 2/3 | | | | | | |
| Join | Result Unknown | 73 | 83 | 73 | 83 | 73 | 83 |
| | Change Unknown | 60 | 61 | 60 | 61 | 73 | 83 |
| | Start Unknown | 53 | 67 | 53 | 67 | 53 | 83 |
| Separate | Result Unknown | 59 | 92 | | | | |
| | Change Unknown | 44 | 92 | 50 | | 69 | |
| | Start Unknown | | 67 | | | | 77 |



PLAN – DUE: February 15, 2019

ACT – DUE: February 15, 2019

ASSESS – DUE: April 12, 2019 & May 31, 2019

REFLECT – DUE: April 12, 2019 & May 31, 2019