



Goal Setting
Overall Goal: 80% of students will increase their level of achievement in number sense, based on a pre and post diagnostic assessment

Needs Assessment / Where Are We Now?

Upon initial observations and diagnostics (Numeracy Nets, FMS activities) students are generally positive about math, but lack resilience to adequately problem solve.

Theory of Action: Due October 12, 2018
If we create engaging learning experiences through a focus on integrating global competencies 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
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 monitoring learning and setting goals

I can see and hear resilience in problem solving
I can see and hear use of more efficient strategies
I can see and hear math talks
I can see and hear a growth mindset

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						
	Counting all	Modeling and counting by ones	Counting by ones	Counting by tens	Skip counting	Count and check	Adding	Representing subtraction	Using strategies	Using strategies	Using strategies	Using strategies	Using strategies	Using strategies	Using strategies	Using strategies	Using strategies	Using strategies	Using strategies
PRE	////	////	////	////	////	////	////	////	////	////	////	////	////	////	////	////	////	////	////
POST	////	////	////	////	////	////	////	////	////	////	////	////	////	////	////	////	////	////	////

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PRE: QUANTITATIVE EVIDENCE – DUE: October 12, 2018

Historical EQAO data has indicated that achievement in math has been the lowest of the three EQAO domains.

Initial diagnostics have shown grade level ability in solving equations, but below expectations in problem solving

Math surveys have indicated that students generally have a positive attitude about math (particularly in primary grades)

QUALITATIVE ANECDOTES – DUE: October 12, 2018

Students lack resilience and perseverance in problem solving activities

Students generally do not use manipulatives unless specifically directed

MID: QUANTITATIVE EVIDENCE – DUE: November 16, 2018

Activities from the FMS activity booklet were used as diagnostics for our classes. Results from the activity were generally positive, with the majority of students able to solve the problems. Some issues regarding place value became apparent. (please refer to picture on the One Note)

QUALITATIVE ANECDOTES – DUE: November 16, 2018

The grade three classes noticed a number of students who got the correct answer, but failed to show any strategy or methodology.

POST: QUANTITATIVE EVIDENCE – DUE: February 8, 2019

Data showed that students were comfortable in solving algorithms and formulas. Problem solving and critical thinking remained an area that still needs some growth.

QUALITATIVE ANECDOTES – DUE: February 8, 2019

Students are beginning to be more analytical about their work. The creation of ‘math buddies’ between the grade 3’s and the grade 5’s has increased engagement and resilience.

	Grade 1/2 Grade 2/3	November		December		February	
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: October 12, 2018	ACT – DUE: October 12, 2018	ASSESS – DUE: November 16, 2018 & February 8, 2019	REFLECT – DUE: November 16, 2018 & February 8, 2019
<p>The plan is to consistently engage students in math talks in order to create a comfort level when working in numeracy. Also, explicit discussions and visuals regarding growth mindset will be part of the programming in order to see if it has any effect on resilience in problem solving.</p>	<p>We are going to do a pre-diagnostic to gauge current level of achievement. We are also going to use math games from the Lawson text and track level of engagement.</p>	<p>Nov 16 – please see evidence above.</p>	<p>Nov 16 – we felt that the diagnostic activity was too easy for the classes. Moving forward, we decided we would change some of the numbers in the FMS activities to make it more appropriate/challenging. We are also going to use diagnostics from Numeracy Nets to get a more accurate level.</p> <p>February 8 – We all seem to be pleased with the progress we are seeing and would like to stay the course.</p>

2nd CYCLE OF INQUIRY

Theory of Action: Due February 15, 2019

If we create engaging learning experiences through a focus on [integrating global competencies](#) 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:	Success Criteria for monitoring learning and setting goals
<p><i>I can see and hear authentic learning experiences</i> <i>I can see and hear assessment and feedback practices</i> <i>I can see and hear student-centered learning</i> <i>I can see and hear students using resources with intention</i> <i>I can see and hear educators as responsive facilitators</i> <i>I can see and hear Collaboration</i> <i>I can see and hear purposeful planning</i> <i>I can see and hear discourse along with independent think time</i> <i>I can see and hear wellness</i></p>	<p>I can see and hear resilience in problem solving I can see and hear use of more efficient strategies I can see and hear math talks I can see and hear a growth mindset</p>

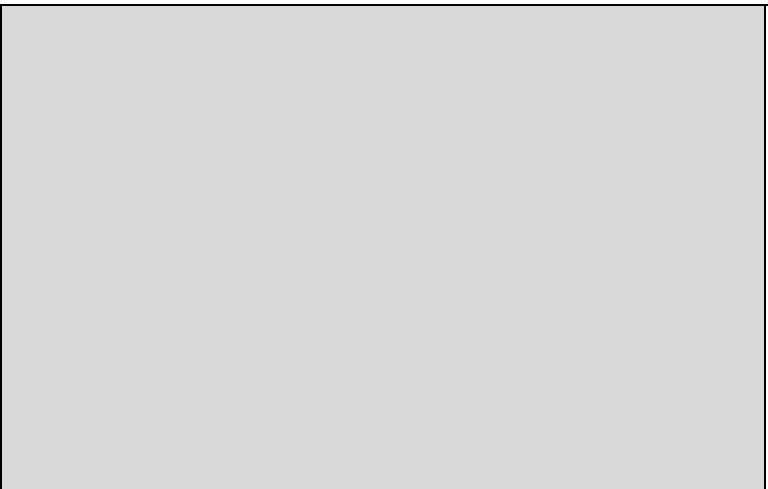
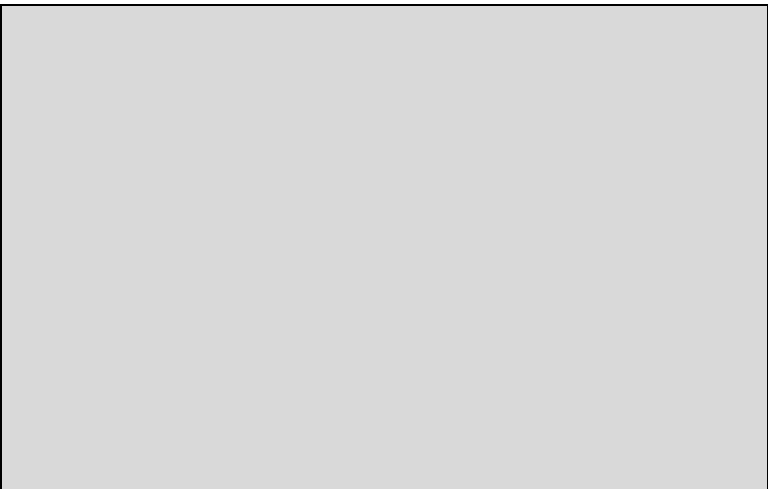
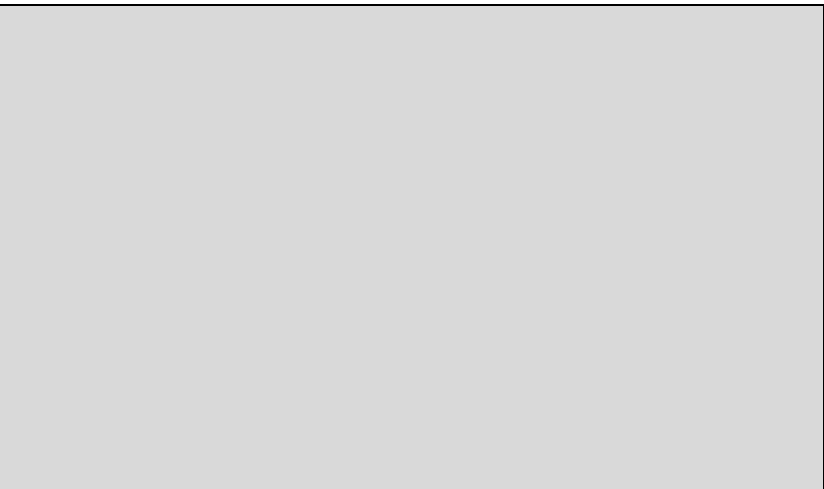
[‘Look Fors’](#)

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.

DATA: Monitoring the IF: Based on the <i>co-constructed success criteria</i> for educator learning. (e.g. criteria for providing effective descriptive feedback)	PRE: QUANTITATIVE EVIDENCE – DUE: February 15, 2019 Data collected from the FMS and numeracy net activities showed improvement in math concepts. Work is still required in problem solving.	MID: QUANTITATIVE EVIDENCE – DUE: April 12, 2019	POST: QUANTITATIVE EVIDENCE – DUE: May 31, 2019
Monitoring the THEN: Based on the <i>co-constructed success criteria</i> for the pre, mid and post assessments of student learning (e.g success criteria for number fluency) SAMPLES:	QUALITATIVE ANECDOTES – DUE: February 15, 2019 Engagement has noticeably increased as a result of math games and math buddies.	QUALITATIVE ANECDOTES – DUE: April 12, 2019	QUALITATIVE ANECDOTES – DUE: May 31, 2019

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

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	Grade 2/3						
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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