

IKAN & GloSS Assessments

(Mathematics Reasoning Inventory)

ADAPTED FROM NEW ZEALAND NUMERACY PROJECT



Credentialing Training
Dr. Lya Snell, Mathematics Coordinator
Henry County Schools

***READ/DISCUSS
FACT FLUENCY ARTICLE***

OVERVIEW OF CREDENTIALING (PRACTITIONER LEVEL)

- ▶ **Module 1:** How Do I Give These Assessments?
 - ▶ Administering the GloSS & IKAN Assessments with Fidelity
- ▶ **Module 2:** What Does the Data From These Assessments Tell Me?
 - ▶ Understanding the Data
- ▶ **Module 3:** How Do I Use the Data Instructionally?
 - ▶ NZ Maths Numeracy Project



ULTIMATE GOALS OF CREDENTIALING PROCESS

- ▶ Every teacher will be trained to administer the IKAN and GloSS Assessments with fidelity
- ▶ Every teacher will be able to understand the data and use the information to assist students with their numerical reasoning
- ▶ Every student will be better math students as they progress in secondary schools because of the solid foundation in number sense gained from using the Numeracy Project



TKES

This professional learning opportunity aligns to the following TKES standards:

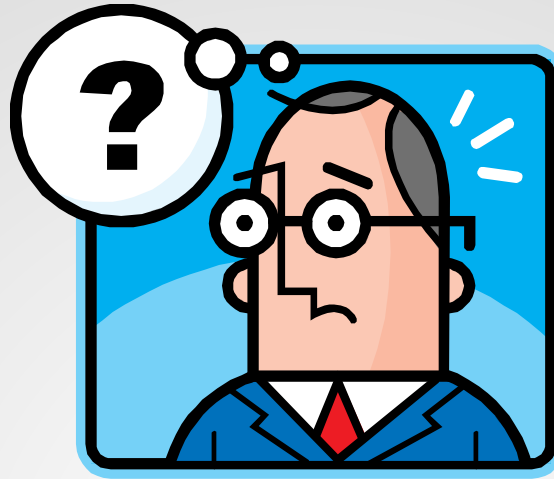
- ▶ **Standard 1: Professional Knowledge**
- ▶ **Standard 2: Instructional Planning**
- ▶ **Standard 3: Instructional Strategies**
- ▶ **Standard 4: Differentiated Instruction**
- ▶ **Standard 5: Assessment Strategies**
- ▶ **Standard 6: Assessment Uses**
- ▶ **Standard 8: Academically Challenging Environment**
- ▶ **Standard 9: Professionalism**

**MODULE 1:
ADMINISTERING THE ASSESSMENTS
WITH FIDELITY
(Gloss & IKAN)**

REVIEW

REVIEW OF MODULE 1

- ▶ **DIRECTIONS:** Work with your table partners and classmates to think about the following. Jot down your thoughts on the paper provided.
- ▶ What is the purpose of these assessments?
- ▶ Describe the GloSS.
- ▶ Describe the IKAN Counting Interview.
- ▶ Describe the IKAN Written Assessment.
- ▶ Which assessment is administered first?
- ▶ Describe the Strategy Stages 0 – 8 with a table partner.



Any Questions regarding the
Beginning of the Year
Administration???



MODULE 2: UNDERSTANDING THE DATA

PURPOSE

- ▶ **MATH REASONING & COMPREHENSION =**
MASTERY/TRUE UNDERSTANDING OF
COMMON CORE MATH STANDARDS
- ▶ IT IS IMPORTANT TO KNOW HOW THE STUDENT IS THINKING IN ORDER TO ADEQUATELY ASSIST HIM/HER WITH MISUNDERSTANDINGS. IT'S NOT JUST ABOUT THE RIGHT ANSWER, BUT MORE ABOUT MENTAL PROCESSING TO ARRIVE AT AN ANSWER.

OVERVIEW OF MODULE 2

- ▶ Overview of Assessments & Expectations
- ▶ Description of Strategy Stages
- ▶ Summary Report
- ▶ Data Interpretations (GloSS & IKAN)
- ▶ Universal Screener Expectations
- ▶ Understanding POINT
- ▶ Flexible Grouping using the data
- ▶ Performance Task with Actual Student Data
- ▶ Using the Assessments for Tiers 1, 2, and 3 of MTSS
- ▶ Overview of Module 3


DESCRIPTION OF STRATEGY STAGES

- ▶ It is important for teachers to understand the 0 - 8 strategy stages completely before administering this assessment.

Stage 0: EM (Emergent)
Stage 1: CA (One-to-one counting)
Stage 2: CA (Counting from one on materials)
Stage 3: CAI (Counting from one by imaging)
Stage 4: AC (Advanced counting)
Stage 5: EA (Early additive part-whole)
Stage 6: AA (Advanced additive/early multiplicative part-whole)
Stage 7: AM (Advanced multiplicative part-whole)
Stage 8: AP (Advanced proportional part-whole)

ARE YOU REALLY COMFORTABLE WITH
THE STRATEGY STAGES?

▶ How comfortable are you in
identifying the different
stages? Let's see ... 😊



HOW CAN YOU APPLY YOUR UNDERSTANDING OF STRATEGY STAGES USING ANTHONY'S SCORE SHEET?


Forward
Number
Word
Sequence

Recognition
and
Sequence

UNDERSTANDING ALL SECTIONS OF THE IKAN COUNTING INTERVIEW

Backward
Number
Word
Sequence

R & S to
20, 120,
1000



Number
Sequence
and Order

Fractions

**UNDERSTANDING ALL
DOMAINS OF IKAN
WRITTEN ASSESSMENT**

Place
Value

Basic
Facts

Student Answer Sheet – IKAN

IKAN 1 IKAN 2 IKAN 3 IKAN 4 (Circle the form used)

Student Name: _____ Year Level: 4 Date: _____

Stage 4
Advanced Counting

Stage 5
Early Additive

Stage 6
Advanced Additive

Stage 7
Advanced Multiplicative

Stage 8
Advanced Proportional

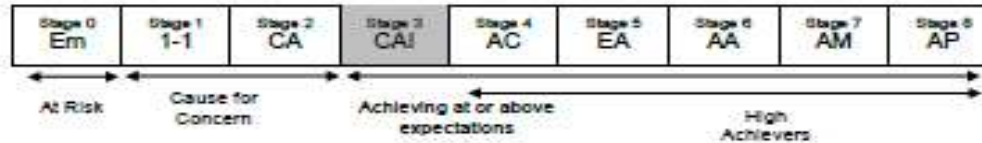
Domain	Part One	Part Two	Part Three	Part Four	Part Five	Stage
Number Sequence and Order	1. 50 ✓ 2. 29 ✓	1. 600 ✓ 2. 999 ✓	1. 440 000 ✓ 2. 801 099 ✓	1. 2.		5 EA
Fractions	3. $\frac{1}{2}$ ✓ 4. $\frac{1}{5}$ ✓	3. $5\frac{1}{4}$ 4. $\frac{1}{4}$ $\frac{2}{4}$ $\frac{3}{4}$ ✓	3. $\frac{1}{3}$ $\frac{1}{6}$ $\frac{1}{7}$ 4. $4\frac{1}{5}$	3. 4.	1. 2.	4 AC
Place Value	5. 8 ✓ 6. 90 ✓	5. 3 6. 490 ✓	5. 6 6. 8	5. 6.	3. 4.	4 AC
Basic Facts	7. 14 ✓ 8. 9 ✓	7. 16 ✓ 8. 35 ✓	7. 7 ✓ 8. 42 ✓	7. 8.	5. 6. 7. 8.	6 AA
Total	8	6	3			

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INTERPRETING GLOSS AND IKAN DATA



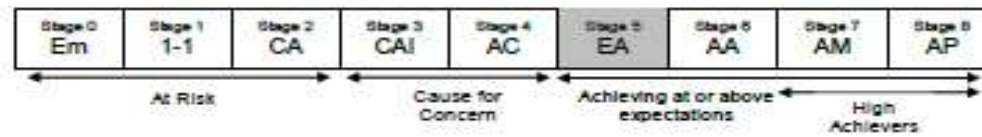
Mathematics Strategy Expectations (GLoSS) End of Kindergarten Mathematics Strategy Expectations



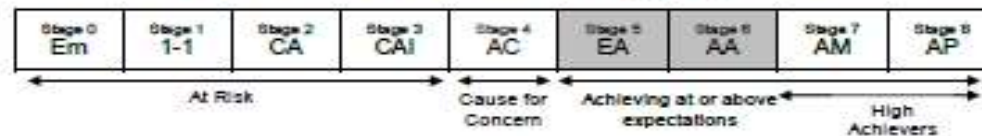
End of 1st Grade Mathematics Strategy Expectations



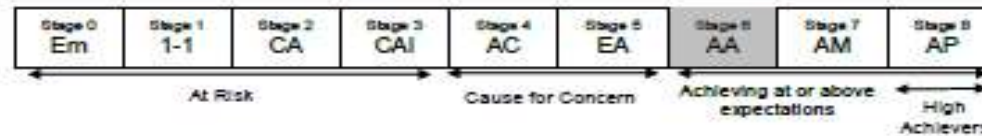
End of 2nd Grade Mathematics Strategy Expectations



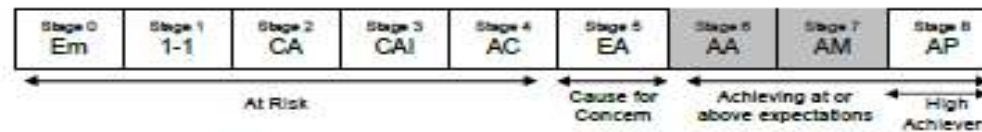
End of 3rd Grade Mathematics Strategy Expectations



End of 4th Grade Mathematics Strategy Expectations



End of 5th Grade Mathematics Strategy Expectations



STRATEGY STAGE EXPECTATIONS CONTINUUM



Mathematics Number Knowledge Grade Level Expectations (IKAN)

NUMBER KNOWLEDGE STAGE EXPECTATIONS CONTINUUM

End of Kindergarten Number Knowledge Expectations

Counting Interview					Written Assessment				
NO PARTS MASTERED	FNWS/BNWS COUNTING MASTERED, BUT R&S NOT MASTERED	FNWS/BNWS/ R&S to 20	FNWS/BNWS/ R&S to 120	FNWS/BNWS/ R&S to 1000	Stage 4 AC	Stage 5 EA	Stage 6 AA	Stage 7 AM	Stage 8 AP
At Risk		Cause for Concern		Achieving at or above expectations		High Achievers			

End of 1st Grade Number Knowledge Expectations

Counting Interview					Written Assessment				
NO PARTS MASTERED	FNWS/BNWS COUNTING MASTERED, BUT R&S NOT MASTERED	FNWS/BNWS/ R&S to 20	FNWS/BNWS/ R&S to 120	FNWS/BNWS/ R&S to 1000	Stage 4 AC	Stage 5 EA	Stage 6 AA	Stage 7 AM	Stage 8 AP
At Risk		Cause for Concern		Achieving at or above expectations		High Achievers			

End of 2nd Grade Number Knowledge Expectations

Counting Interview					Written Assessment				
NO PARTS MASTERED	FNWS/BNWS COUNTING MASTERED, BUT R&S NOT MASTERED	FNWS/BNWS/ R&S to 20	FNWS/BNWS/ R&S to 120	FNWS/BNWS/ R&S to 1000	Stage 4 AC	Stage 5 EA	Stage 6 AA	Stage 7 AM	Stage 8 AP
At Risk		Cause for Concern		Achieving at or above expectations		High Achievers			

End of 3rd Grade Number Knowledge Expectations

Counting Interview					Written Assessment				
NO PARTS MASTERED	FNWS/BNWS COUNTING MASTERED, BUT R&S NOT MASTERED	FNWS/BNWS/ R&S to 20	FNWS/BNWS/ R&S to 120	FNWS/BNWS/ R&S to 1000	Stage 4 AC	Stage 5 EA	Stage 6 AA	Stage 7 AM	Stage 8 AP
At Risk		Cause for Concern		Achieving at or above expectations		High Achievers			

End of 4th Grade Number Knowledge Expectations

Counting Interview					Written Assessment				
NO PARTS MASTERED	FNWS/BNWS COUNTING MASTERED, BUT R&S NOT MASTERED	FNWS/BNWS/ R&S to 20	FNWS/BNWS/ R&S to 120	FNWS/BNWS/ R&S to 1000	Stage 4 AC	Stage 5 EA	Stage 6 AA	Stage 7 AM	Stage 8 AP
At Risk		Cause for Concern		Achieving at or above expectations		High Achievers			

End of 5th Grade Number Knowledge Expectations

Counting Interview					Written Assessment				
NO PARTS MASTERED	FNWS/BNWS COUNTING MASTERED, BUT R&S NOT MASTERED	FNWS/BNWS/ R&S to 20	FNWS/BNWS/ R&S to 120	FNWS/BNWS/ R&S to 1000	Stage 4 AC	Stage 5 EA	Stage 6 AA	Stage 7 AM	Stage 8 AP
At Risk		Cause for Concern		Achieving at or above expectations		High Achievers			

Based on Common Core Mathematics Expectations

Learning & Leadership Services



WHAT 'S THE DIFFERENCE?

Differentiated Instruction VS Flexible
Grouping



FLEXIBLE GROUPING USING GLOSS & IKAN DATA

SCENARIO #1

UNDERSTANDING THE DATA IN...



LOG IN

(USING YOUR NETWORK LOGIN)



Sign In

Sign in with

HENRY COUNTY EMAIL



Username

lya.snell

Password

••••••••

Sign In

Your Username and Password are the same as your email Username and Password.

Need Help? Click [[HERE](#)] to go to the Password Reset web page or call the Henry County Helpdesk at (770) 898-4043.

Ver. 15.1.0.25565



GO TO CLASSROOMS (CLICK ON STUDENT PERFORMANCE)

The screenshot shows the 'point' software interface. At the top left is the logo 'point The Pathway to Success' with a red arrow. At the top right, it says 'Welcome, Lya!' with links for 'Sign Out' and 'My Account'. Below this is a search bar labeled 'Find a Student' and a 'User Man' link. A blue navigation bar contains several menu items: 'School & District Data Reports & Indicators', 'Classrooms Rosters, Reports, Planners', 'Assessment Admin Create & Monitor', 'Educator Development Goals, Performance, PD', and 'Interventions Plans & Reports'. Below the navigation bar is a grid of four main content areas: 1. 'Student Performance' with a bar chart icon and description 'Analyze by test, standard, section and skill'. 2. 'Student Groups' with a group of people icon and description 'For differentiated instruction'. 3. 'Lesson Planner' with a calendar icon and description 'Schedule lessons, units and materials'. 4. 'Instructional Materials' with a folder icon and description 'Find standards, curriculum, courses and resources'. Below 'Instructional Materials' is 'Curriculum Manager' with description 'Create and edit curriculum, curricular units and other instructional materials'. On the left side, there are partial views of 'W', 'You', and 'K-5 Resources'. At the bottom, there are some statistics: '07 120%', '05 100%', '99 56%', and '96 17%'. A large red arrow points from the bottom right towards the 'Student Performance' option.

CLICK ON MATHEMATICS SECTION FOR YOUR CLASS

https://henrycounty.schoo... Student Performance - Sch... Google

Edit View Favorites Tools Help

point The Pathway to Success

Welcome, Lya! Sign Out My Account Help

Find a Student Go

User Management

School & District Data Reports & Indicators

Classrooms Rosters, Reports, Planners

Assessment Admin Create & Monitor

Educator Development Goals, Performance, PD

Interventions Plans & Reports

Student Performance

Materials Search

Section Chooser Past Years' Sections

Central Dutchtown Elementary

Dingle, Gloria

- All Courses
- Homeroom - HR - Homeroom - S301 - Dingle, GI - PHR
- Language Arts 2nd Grade - 1215.0 - Language Arts - S301 - Dingle, GI - P1
- Mathematics 2nd Grade - 1235.0 - Mathematics 2n - S301 - Dingle, GI - P3**
- Science 2nd Grade - 1225.0 - Science 2nd Gr - S301 - Dingle, GI - P2
- Social Studies 2nd Grade - 1245.0 - Social Studies - S301 - Dingle, GI - P4

ctionality.

WE WILL DISCUSS THE FOLLOWING...

https://henrycounty.schoo... Student Performance - Sch... Google

Section Chooser Past Years' Sections

Central Dutchtown Elementary

Dingle, Gloria

Mathematics 2nd Grade - 1235.0 - Mathematics 2n - S301 - Dingle, GI - P3

Benchmark Dashboard Classroom Test Dashboard Item Analysis Skills Analysis Standards Mastery Student List Student Analysis Intervention Plans

All Test Categories All Subjects to Filter

Start Date	Name	Subject	Level	Standards Set	Percent Proficient
08/05/2013	08/05/13, 2nd Grade GloSS Pre SLO	Mathematics	Grade 2	CCGPS/GPS	42%
08/05/2013	08/05/13, 2nd Grade IKAN Pre Test	Mathematics	Grade 2	CCGPS/GPS	37%
08/05/2013	08/05/13, Pre F&P 2nd Gr SLO 2013	English Language and Literature	Grade 2	Common Core	32%

Show fewer tests

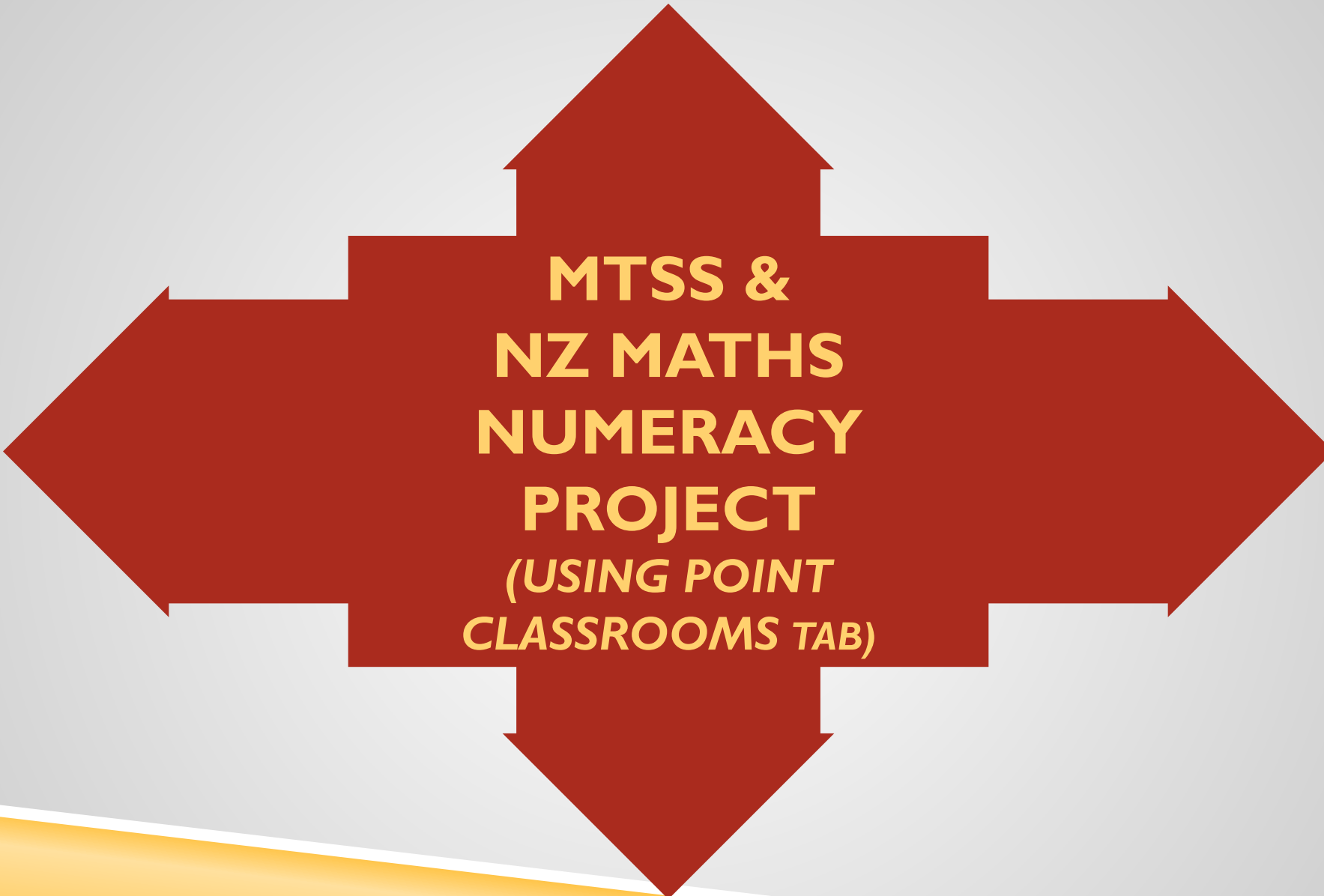


DIFFERENTIATING INSTRUCTION USING GLOSS & IKAN DATA

SCENARIO #2

 **When are we supposed to
do this???**

**DISTRICT SUGGESTION...
DURING MANDATORY
INSTRUCTIONAL FOCUS TIME**



**MTSS &
NZ MATHS
NUMERACY
PROJECT**
*(USING POINT
CLASSROOMS TAB)*



Welcome, Sarah! | Sign

Classrooms

Find a Student

Go to the Classrooms tab and click on Instructional Materials

School & District Data Reports & Indicators | **Classrooms Rosters, Reports, Planners** | Assessment Admin Create & Monitor | Interventions Plans & Reports

Student Performance
 Analyze by test, standard, section and skill

Student Groups
 For differentiated instruction

Lesson Planner
 Schedule lessons, units and materials

Instructional Materials
 Find standards, curriculum, courses and resources

KPI Category: Student CRCT/EOCT Performance

District Resour



Find a Student Go

School & District Data Reports & indicators | **Classrooms Rosters, Reports, Planners** | Assessment Admin Create & Monitor | Interventions Plans & Reports

Type Gloss as the keyword and Math as the subject. Be sure to unclick the box under it so that you are not limited to your grade level only.

Instructional Materials

Select a Subject Select a Grade

Materials Gloss X Search

Create Lesson Plan

[Go to My Materials](#)

[Pending Materials](#)



Search Results

Find

Materials



Gloss

Search

[Go to My Materials](#)

[Pending](#)

[Reset Filters](#)

[Previous](#)

Sort by

Title



Results 1 - 10 of 53

[Next](#)

▼ Material Types

- Curricular Units (1)
- Instructional Units (49)
- Lesson Plans (2)
- Assessments (0)
- Resources (1)

▼ Intended Audience



GloSS/IKAN NZ Maths Numeracy Project (Math Interventions)

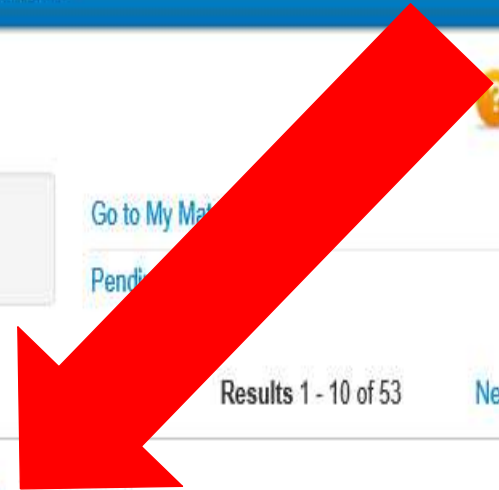
Mathematics, KG-Grade 5


Numeracy Project Interventions from NZ Maths in alignment with GloSS and IKAN <http://nzmaths.co.nz/>

 [Preview](#)

 [Save](#)

 [Schedule](#)





MODULE 3: MAKING INSTRUCTIONAL DECISIONS USING GLOSS/IKAN

Q & A



OVERVIEW OF MODULE 3

- ▶ Overview of Assessments & Expectations
- ▶ Description of Assessments
- ▶ Description of Strategy Stages
- ▶ Overview of MTSS (Tiers 1 – 3)
- ▶ Overview of NZ Maths Numeracy Project Interventions (Tasks & Stage Specific Probes)
- ▶ Using Strategy Stage Assessments for Tier 1 Flexible Groups and Differentiation
- ▶ Using NZ Maths Numeracy Project for Tier 2 & Tier 3 Interventions (structured to accommodate Tier 2 & 3 expectations)
- ▶ Performance Task with Student Data

SUMMARY & CLOSING



THANK YOU FOR YOUR TIME!!

WHAT HAVE YOU LEARNED?

▶ **Performance Assessments**



▶ **Are you ready to teach others?**