Effective Data Protocols that Maximize Precious Meeting Time

Facilitated in partnership by

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The Governor John Engler Center for Charter Schools
Central Michigan University

January 2020

Give One to Get One

On an index card answer the two questions

1 2

On a sticky note tell us what you are hoping to take away from today's session.

3

Review of Norms

- Take an inquiry stance
- Ground statements in evidence
- Assume positive intentions and take responsibility for impact
- Stick to protocol and hear all voices
- Start and end on time
- Be here now

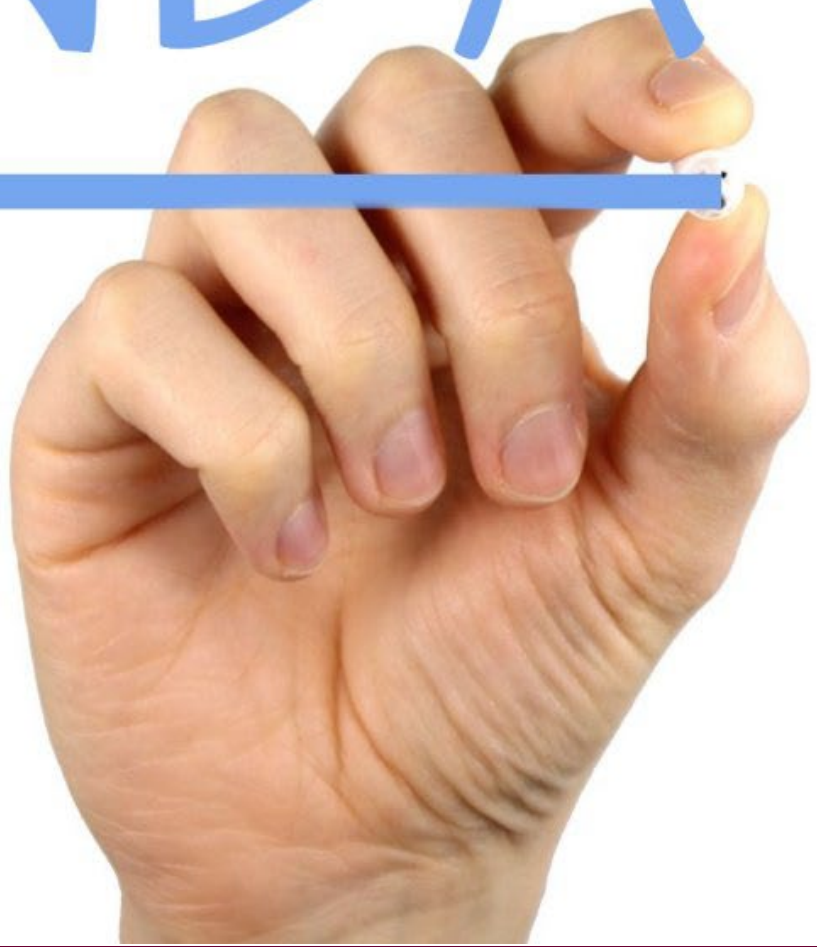
Here's My Two Cents

"Deposit" one penny in the center of the table and share one thought about the norms

After everyone has "deposited" the first penny, "deposit" the second penny and respond by telling the group which norm might be most challenging for you

After all the pennies have been "deposited," discuss ways to support the community when we deviate from the norms

AGENDA



9:25 – 10:15 - Effective Data Protocols – Part I

10:15 – 10:25 - BREAK

10:25 – 11:45 - Effective Data Protocols – Part II

11:45 - LUNCH

12:30 – 2:45 - Using Data Protocols to Increase Student Achievement Part II

2:45 – 3:00 - Closure

Session Objectives

1. Learn to utilize four (4) high leverage data protocols.
2. Experience how high leverage data protocols can increase the productivity of data meetings.
3. Reflect on strategies to increase student achievement.
4. Explore essential components to increase student achievement.
5. Understand what strategies are needed and how it might look in your classroom or at your school.

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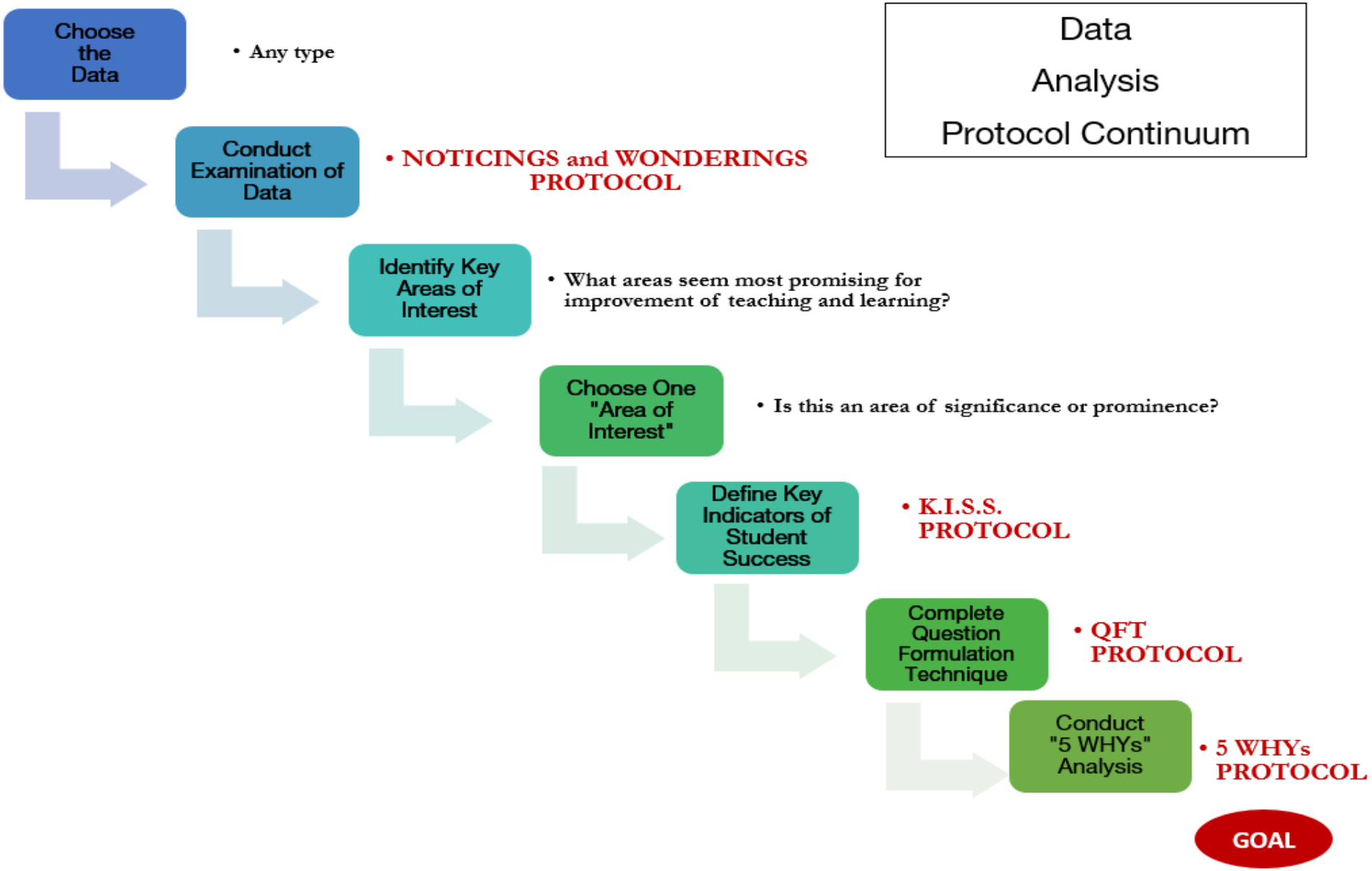
Effective Data Protocol Overview



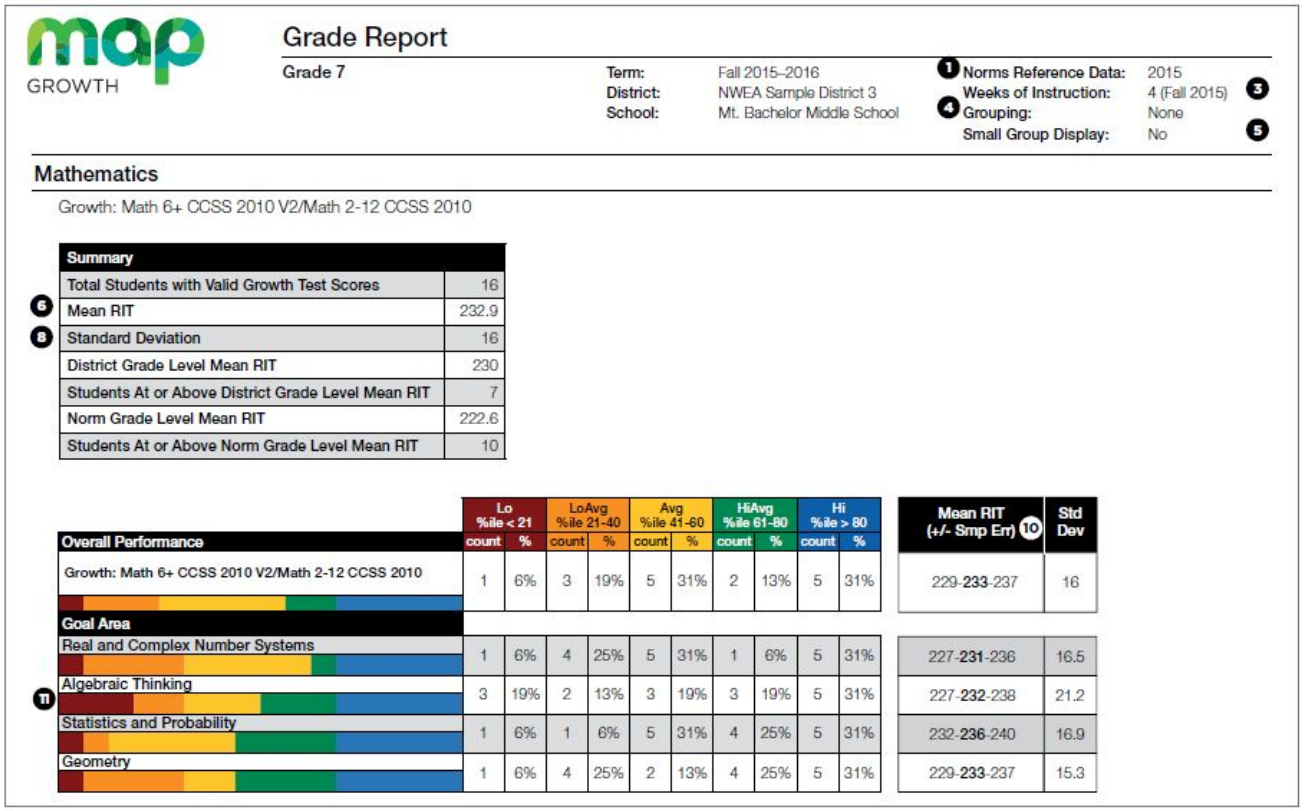
Time to Work

Effective Data Protocols

Choose the Data

- Any type

NWEA Grade Report



map GROWTH

Grade Report

Grade 7

Term: Fall 2015–2016
District: NWEA Sample District 3
School: Mt. Bachelor Middle School

1 Norms Reference Data: 2015
Weeks of Instruction: 4 (Fall 2015) 3
4 Grouping: None
Small Group Display: No 5

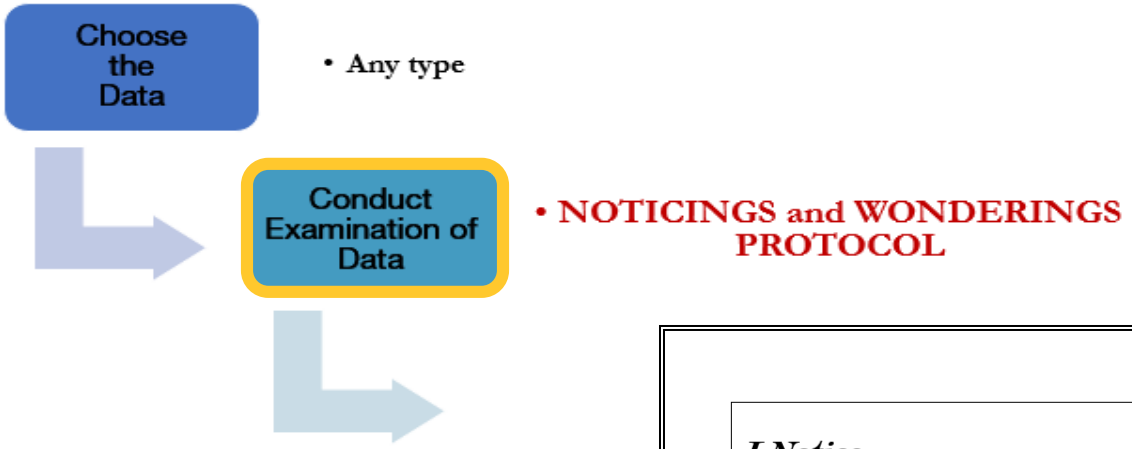
Mathematics

Growth: Math 6+ CCSS 2010 V2/Math 2-12 CCSS 2010

Summary	
Total Students with Valid Growth Test Scores	16
6 Mean RIT	232.9
8 Standard Deviation	16
District Grade Level Mean RIT	230
Students At or Above District Grade Level Mean RIT	7
Norm Grade Level Mean RIT	222.6
Students At or Above Norm Grade Level Mean RIT	10

	Lo %ile < 21		LoAvg %ile 21-40		Avg %ile 41-60		HiAvg %ile 61-80		Hi %ile > 80		Mean RIT (+/- Smp Err) 10	Std Dev
Overall Performance	count	%	count	%	count	%	count	%	count	%		
Growth: Math 6+ CCSS 2010 V2/Math 2-12 CCSS 2010	1	6%	3	19%	5	31%	2	13%	5	31%	229-**233**-237	16
Goal Area												
Real and Complex Number Systems	1	6%	4	25%	5	31%	1	6%	5	31%	227-**231**-236	16.5
11 Algebraic Thinking	3	19%	2	13%	3	19%	3	19%	5	31%	227-**232**-238	21.2
Statistics and Probability	1	6%	1	6%	5	31%	4	25%	5	31%	232-**236**-240	16.9
Geometry	1	6%	4	25%	2	13%	4	25%	5	31%	229-**233**-237	15.3

Effective Data Protocols - Noticings and Wonderings



- **I notice that the Norm Grade Level RIT is 182.4.**
- **I notice that there are 19% or 3 students in the low category for the Goal Area of Algebraic Thinking.**

I Notice....	*I Wonder...*
1 **Evidence based**	1
2 **Judgment free**	2
3 **Solution free**	3
4 **Neutral**	4
5	5
6	6

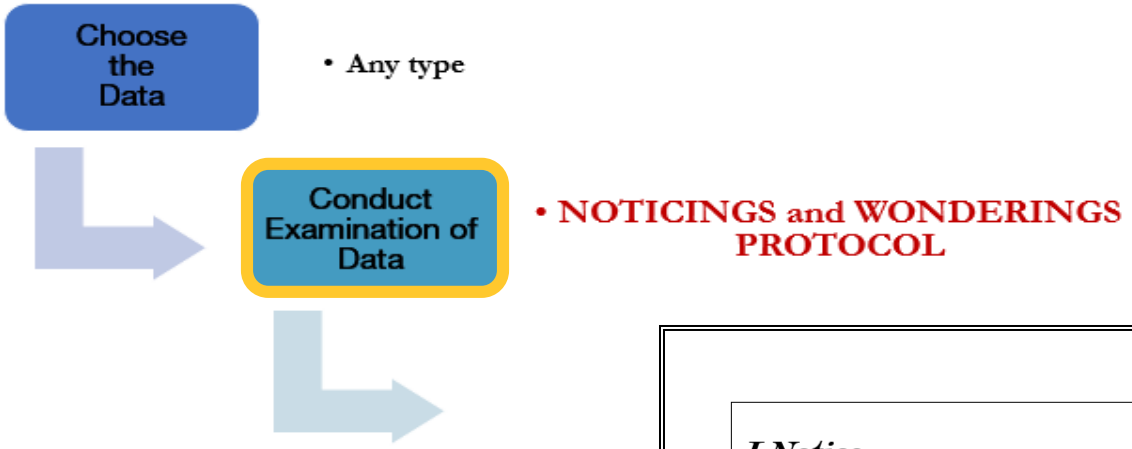
Adapted from Dan Venables Data Action Model

Share

- Each person shares their "I notice" statement
- Group members listen and make no comment; record thoughts and/or questions
- Proceed until everyone has shared
- Repeat

Mark "noticings" that are alike/similar

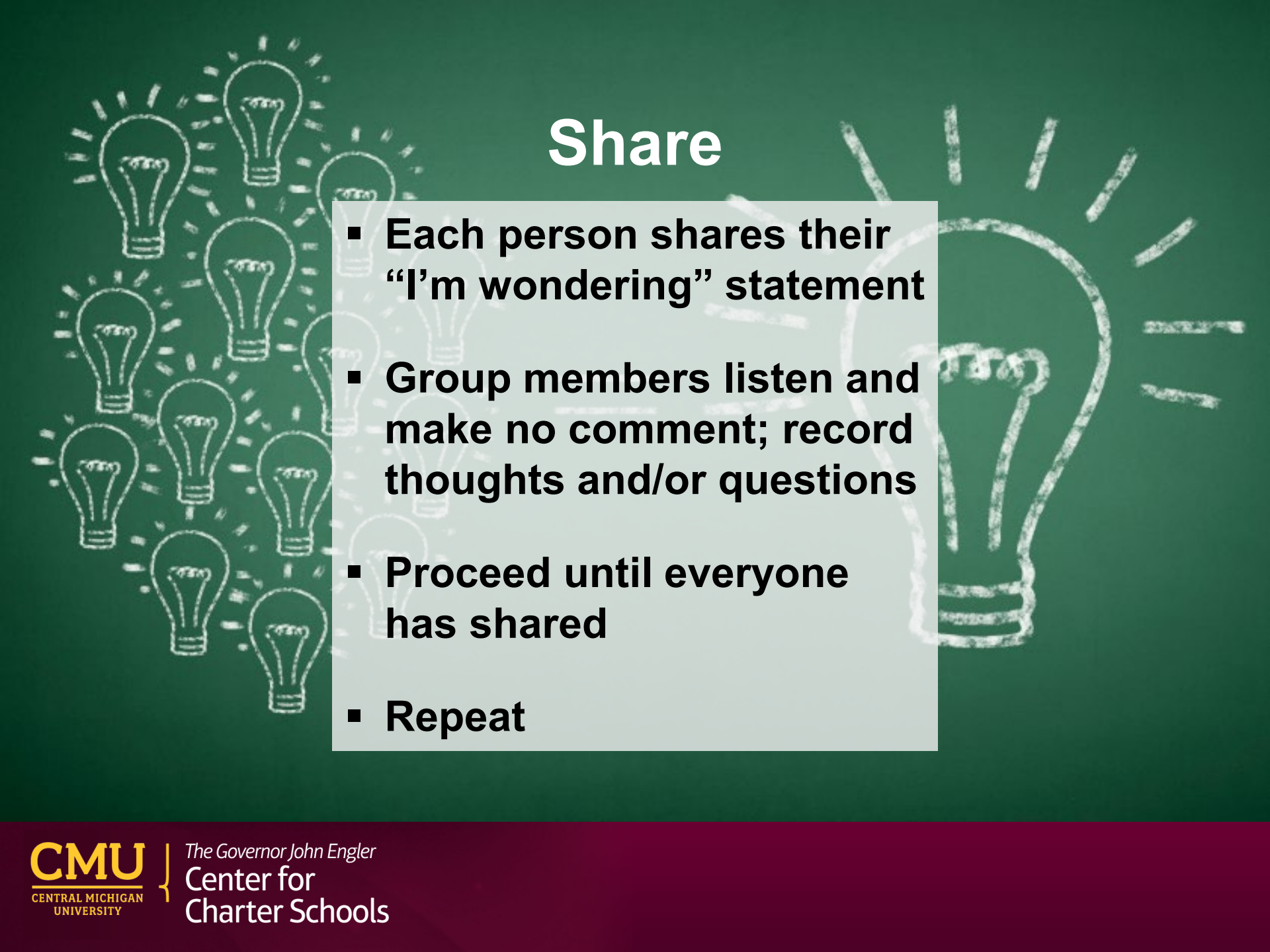
Effective Data Protocols - Noticings and Wonderings



- **I wonder what the specific skills in the Real and Complex Number Systems that students in the Lo / Lo Avg category struggle with most?**
- **I wonder what might be the connection between Real and Complex Number Systems and Algebraic Thinking for students in the Lo / Lo Avg category?**

I Notice....	*I Wonder...*
1	1 **Area of Curiosity**
2	2 **No attempt to solve**
3	3 **How are data connected?**
4	4 **What do the data imply?**
5	5
6	6

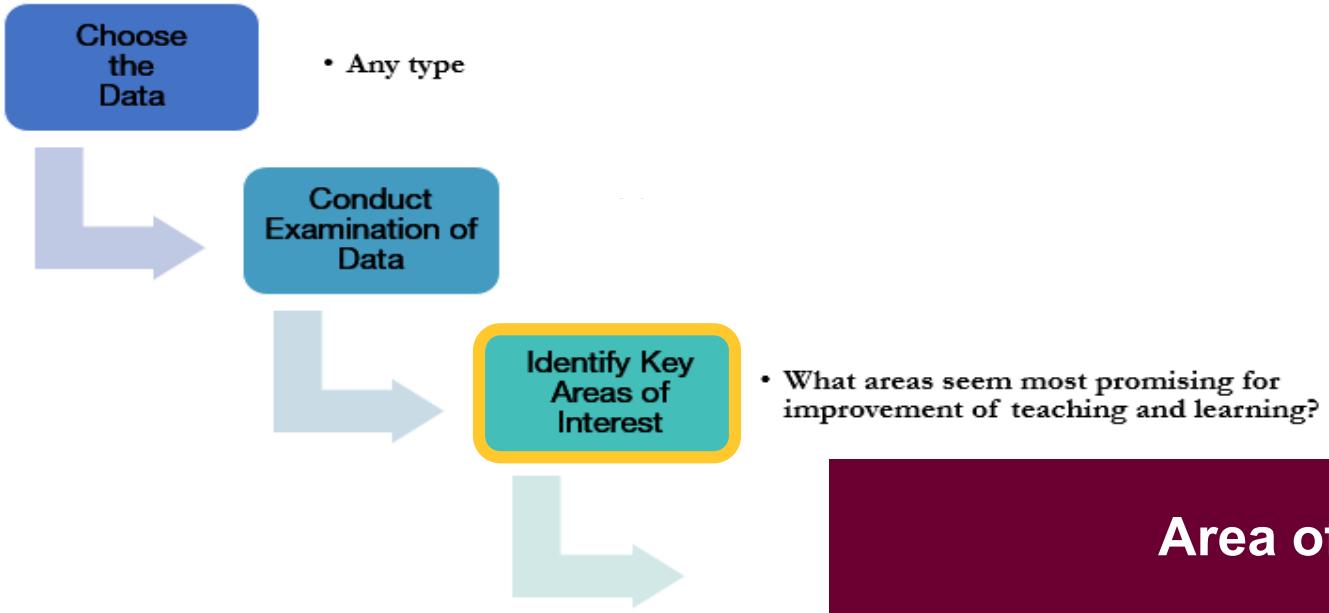
Adapted from Dan Venables Data Action Model



Share

- Each person shares their "I'm wondering" statement
- Group members listen and make no comment; record thoughts and/or questions
- Proceed until everyone has shared
- Repeat

Effective Data Protocols



- **Is this an area that has been reoccurring over the past several years?**
- **If we were to address this "area of interest" would it make a significant difference in student outcomes?**
- **What might happen if we were to "ignore" this area of interest?**

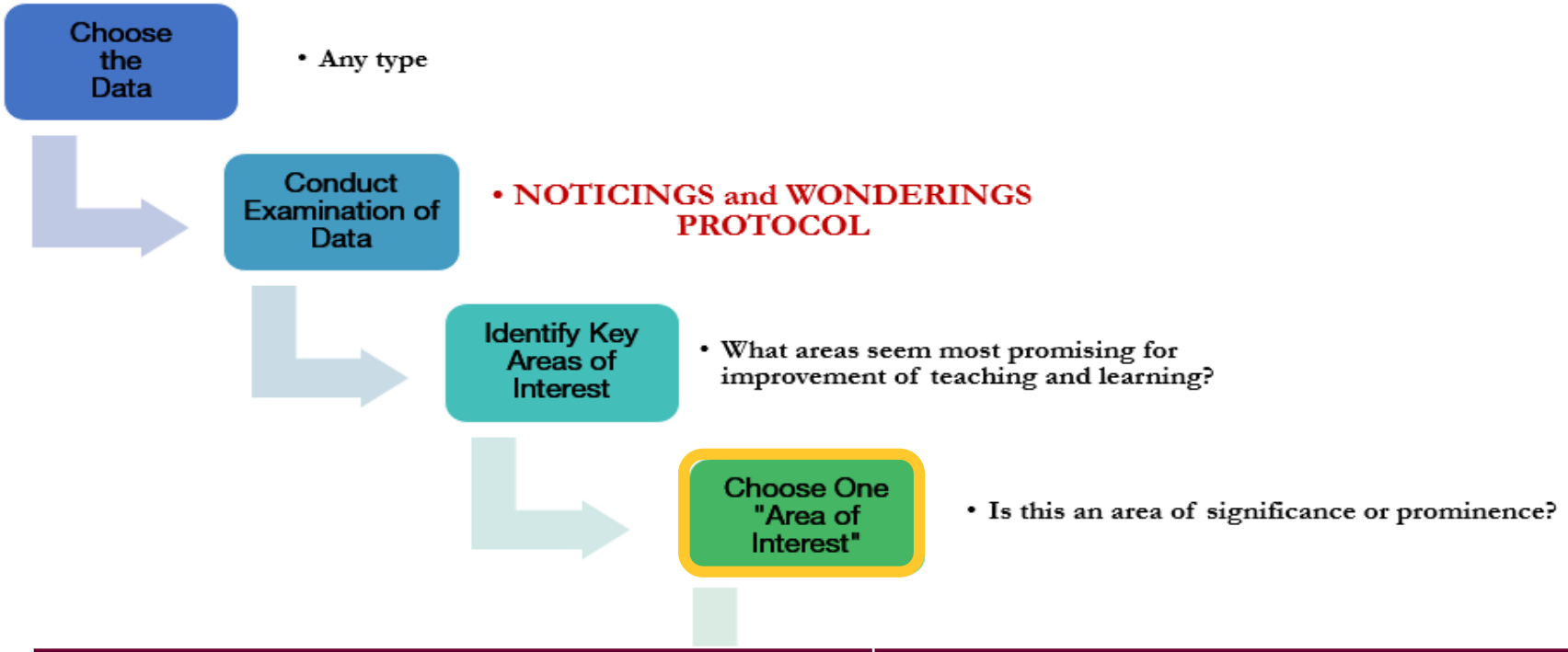
Area of Interest

1. **Math**
2. **Real and Complex Number Systems**

Will addressing this area of interest provide the level of information that will lead to identifying gaps in teaching and/or learning?


Consensus

Effective Data Protocols



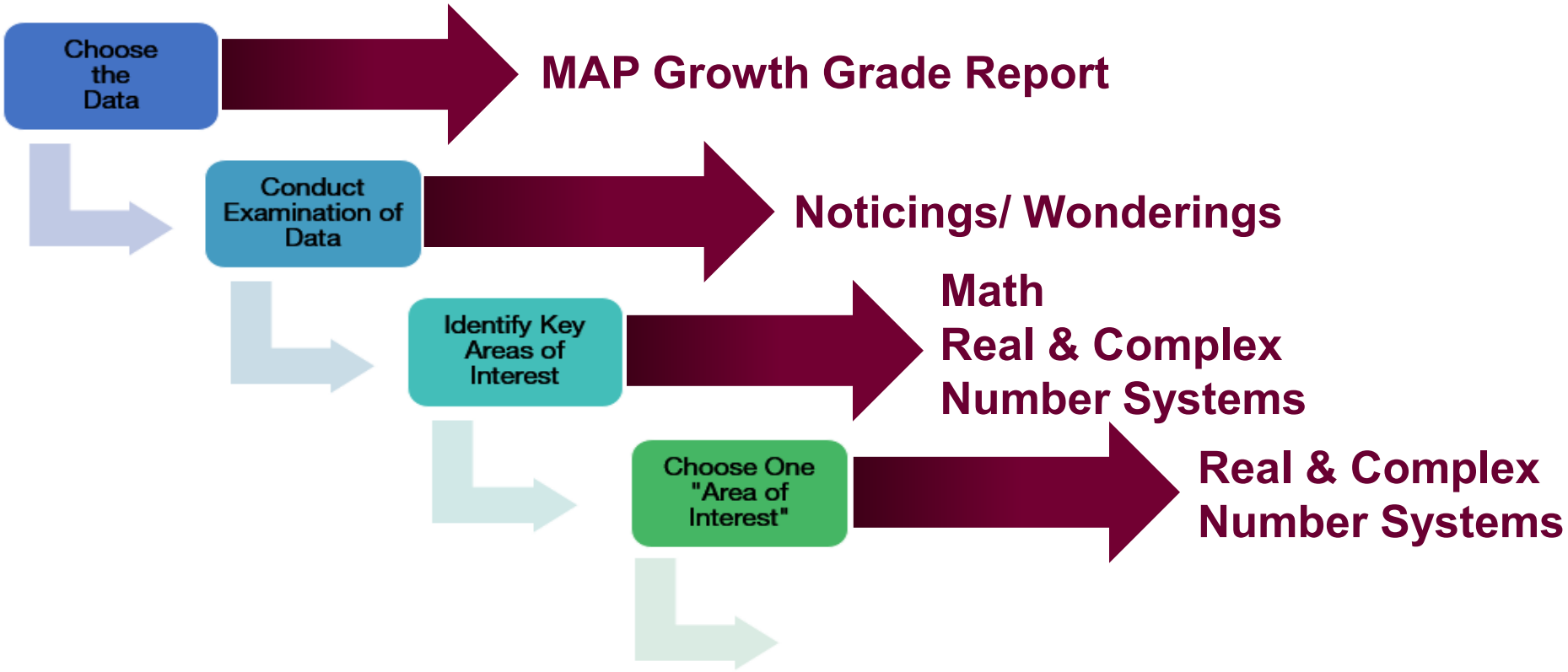
Significance	Prominence
How important is the gap?	How common is the gap?

Consensus

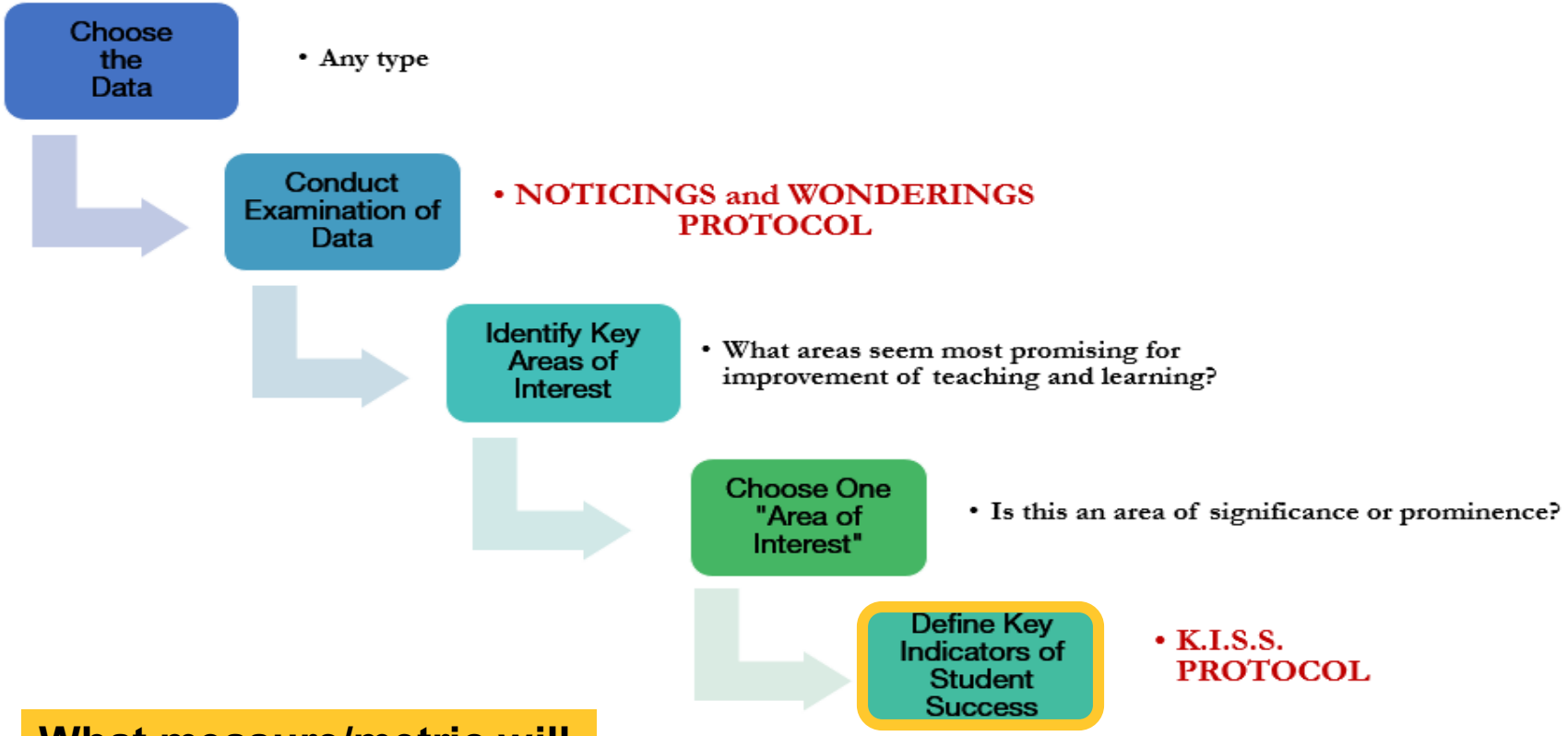
What seems to be emerging for the group?

Significance	Prominence
How important is the gap?	How common is the gap?

Effective Data Protocols



Effective Data Protocols – K.I.S.S.



What measure/metric will be utilize to determine student success?

What does student success "look like" and "sound like" at the mastery level?

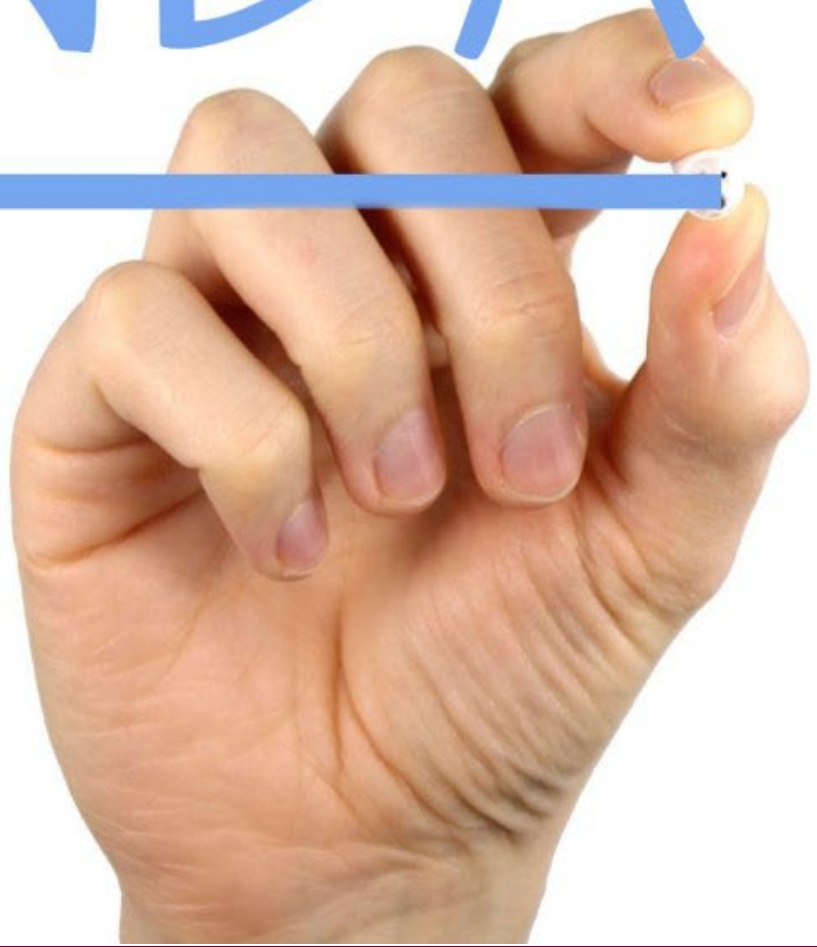
1. **Percent of students deemed college ready after administration of the spring NWEA assessment**
2. **Percent of students deemed proficient on the state assessment**
3. **Percent of students scoring ≥ 3 on writing rubric**

Putting It All Together

- Math
- Real and Complex Number Systems
- K.I.S.S.
  - Percent of students decreases in Lo/LoAvg in Real and Complex Number Systems
  - Percent of students projected to be proficient on M-STEP


BREAK
TIME !!
10:15-10:25

AGENDA



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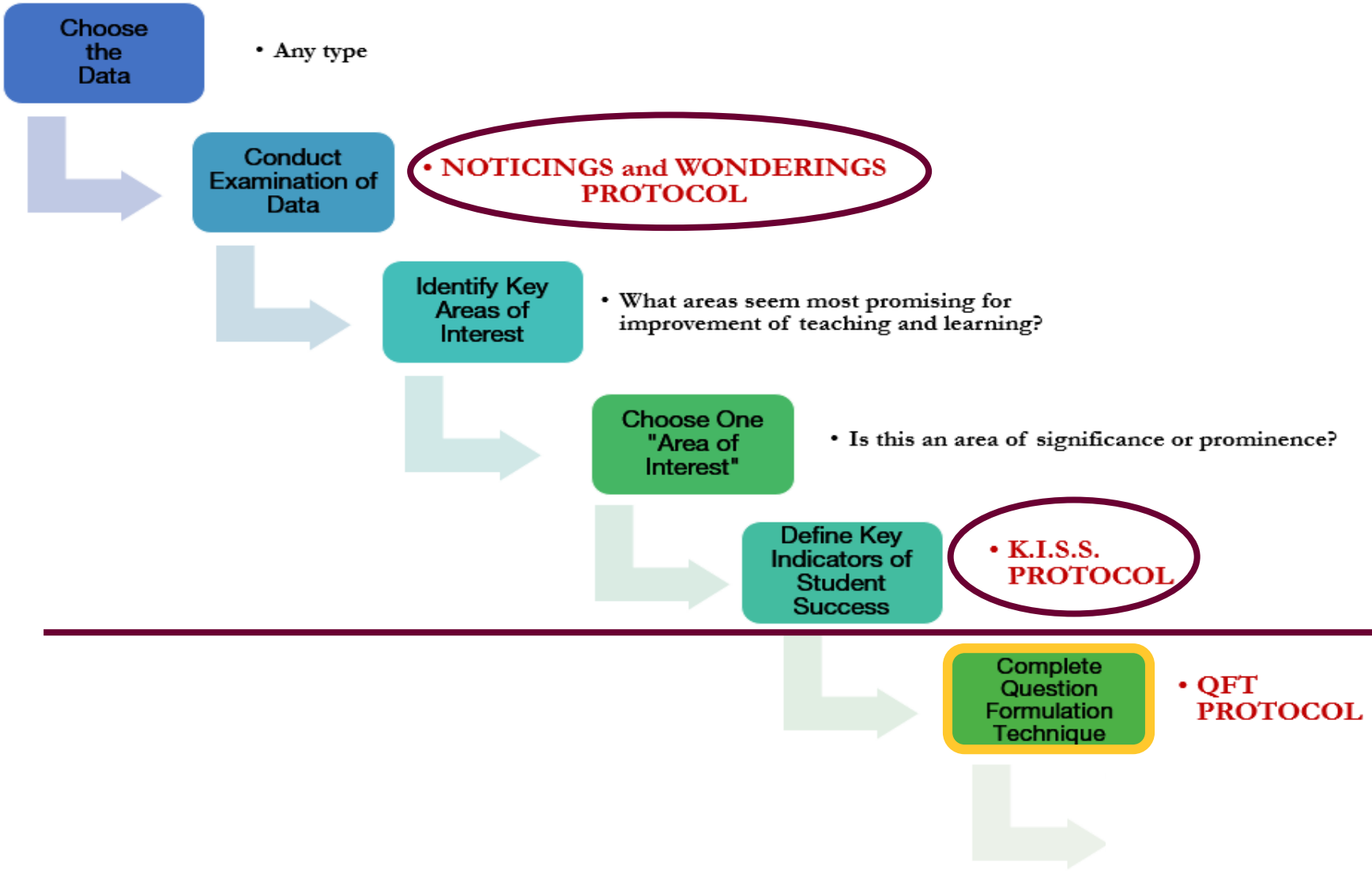
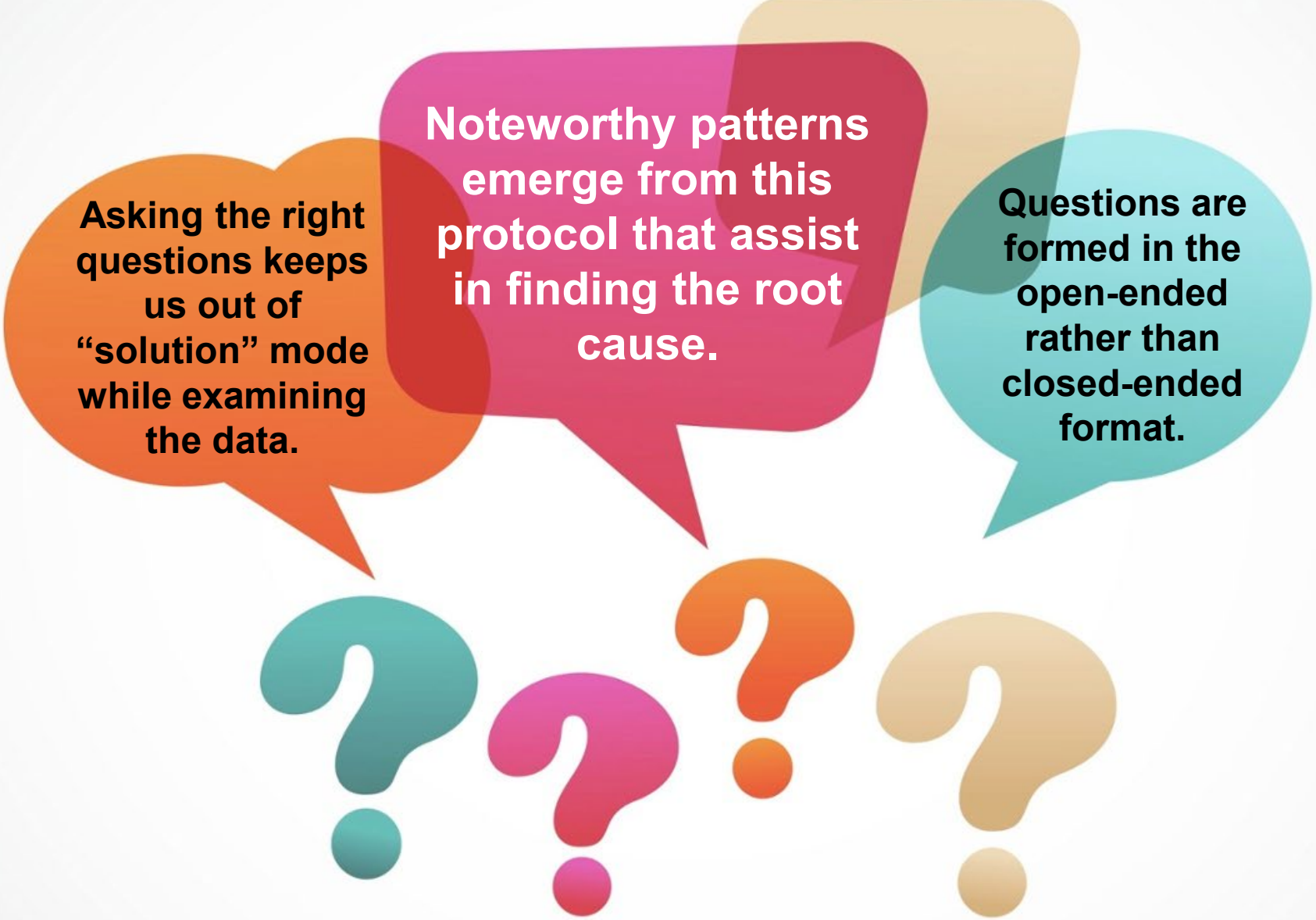



Asking the right questions keeps us out of "solution" mode while examining the data.
Noteworthy patterns emerge from this protocol that assist in finding the root cause.
Questions are formed in the open-ended rather than closed-ended format.

Question Formulation Technique (Modified)

Real and Complex Number Systems

Why do our student struggle more with this particular goal area?

What type of skills are needed to demonstrate grade level proficiency in RCNS?

What student misconceptions are seen/heard most often in RCNS?

What might teachers need in order to effectively teach RCNS?

Question Formulation Technique (Modified)

Area of Interest

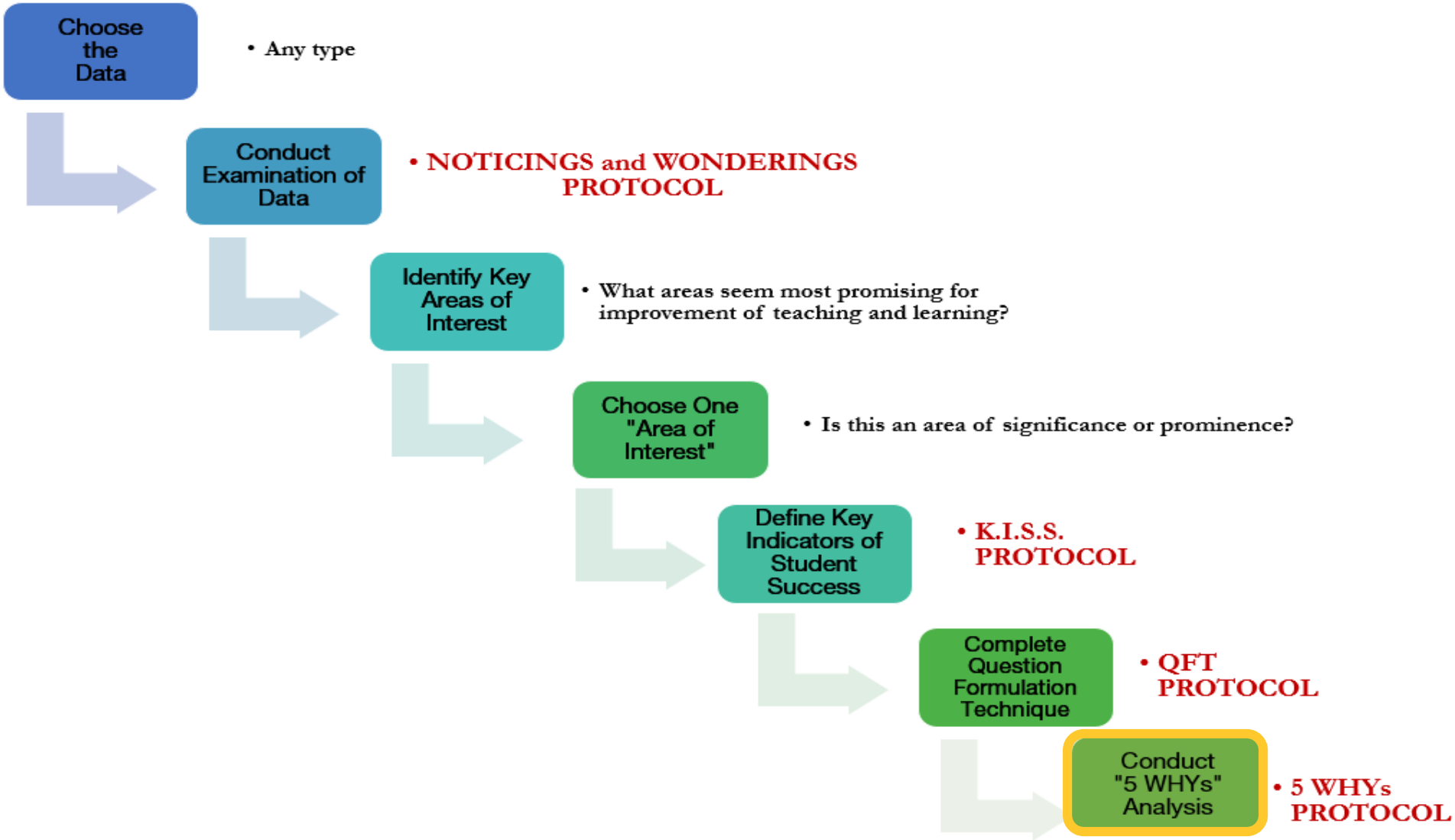
Question

Question

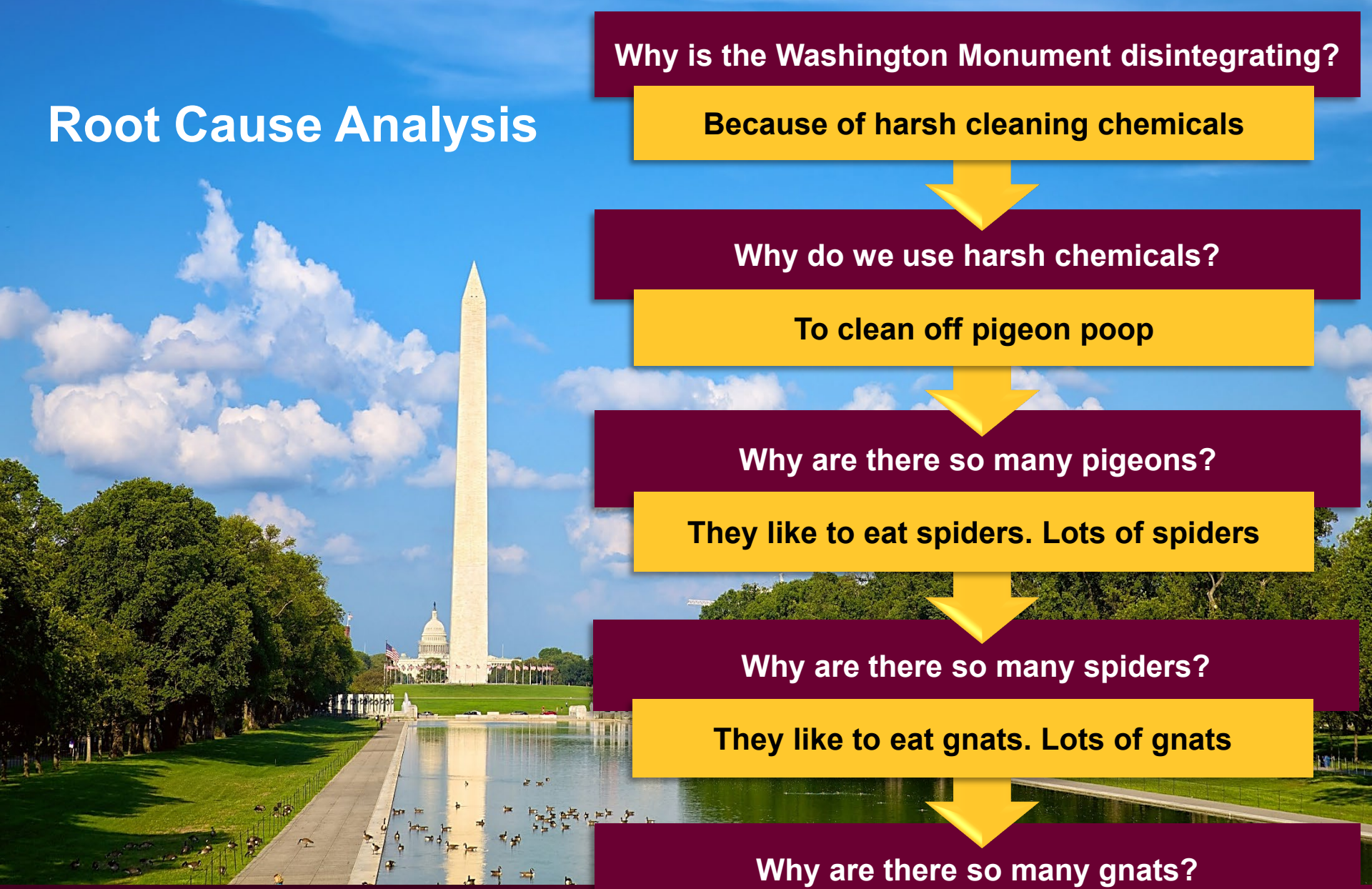
Question

Question

Effective Data Protocols



Root Cause Analysis



Why is the Washington Monument disintegrating?

Because of harsh cleaning chemicals

Why do we use harsh chemicals?

To clean off pigeon poop

Why are there so many pigeons?

They like to eat spiders. Lots of spiders

Why are there so many spiders?

They like to eat gnats. Lots of gnats

Why are there so many gnats?

**The are attracted to the lights.
Turned on at dusk**

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Root Cause Analysis

Why?

Because

Why?

Because

Why?

Because

Why?

Because

Why?

Because

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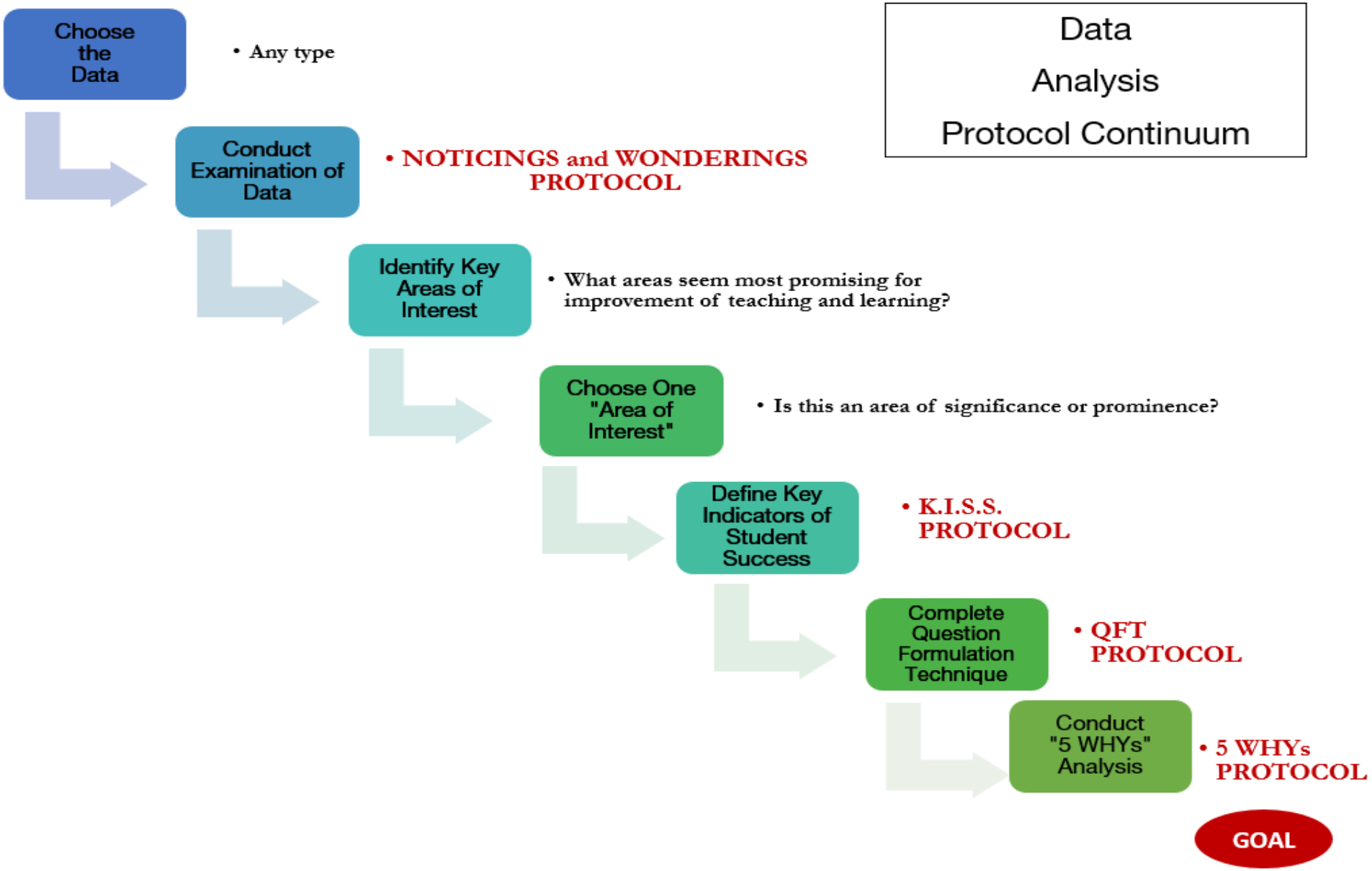
Effective Data Protocols



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Give One to Get One

1. Find someone you haven't spoken with yet today.
2. Take turns sharing your MIP with one another.
3. Each has 1 minute to share!

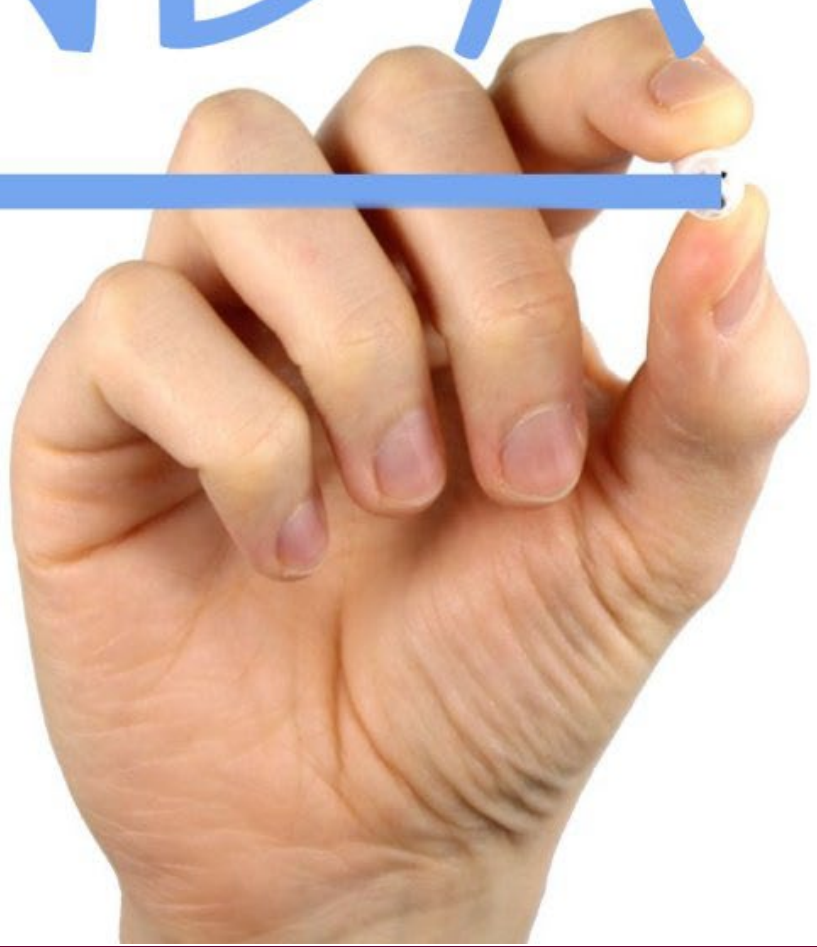
Putting It All Together

Success occurs when…
opportunity meets preparation

~Zig Ziglar

It’s time for LUNCH!

AGENDA



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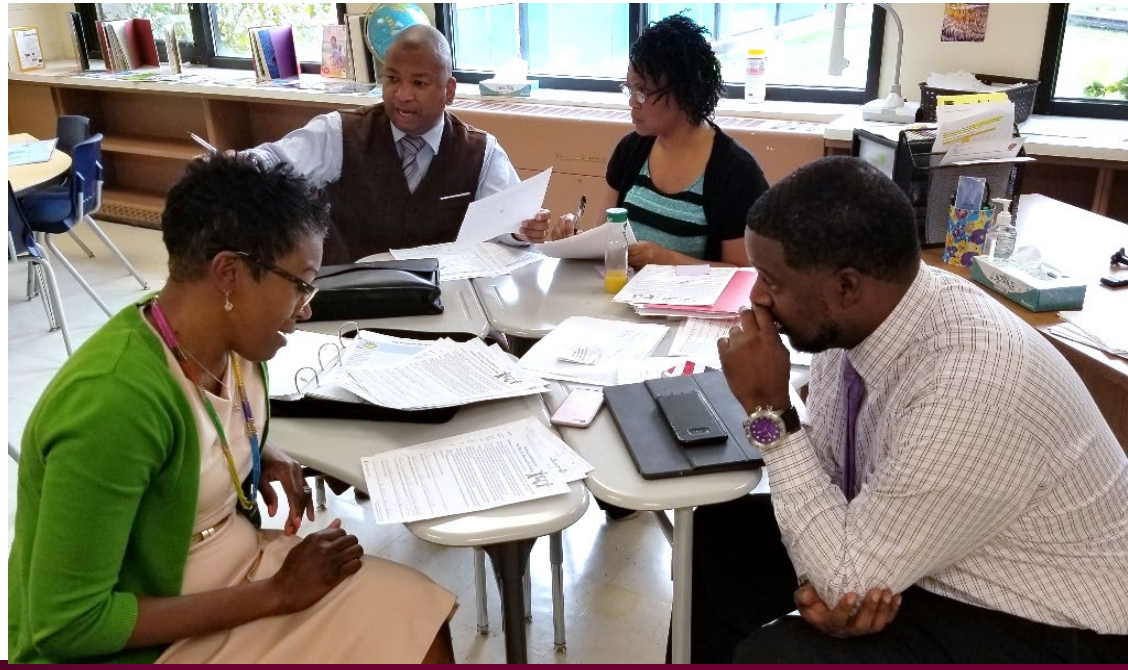
Using Data Protocols to Increase Student Achievement



Outcomes of the Session

- You will reflect on strategies to increase student achievement.
- You will be introduced to the essential components to increase student achievement.
- You will understand what strategies are needed and how it might look in your classroom or at your school.

Student Growth Summary Report

Aggregate by School

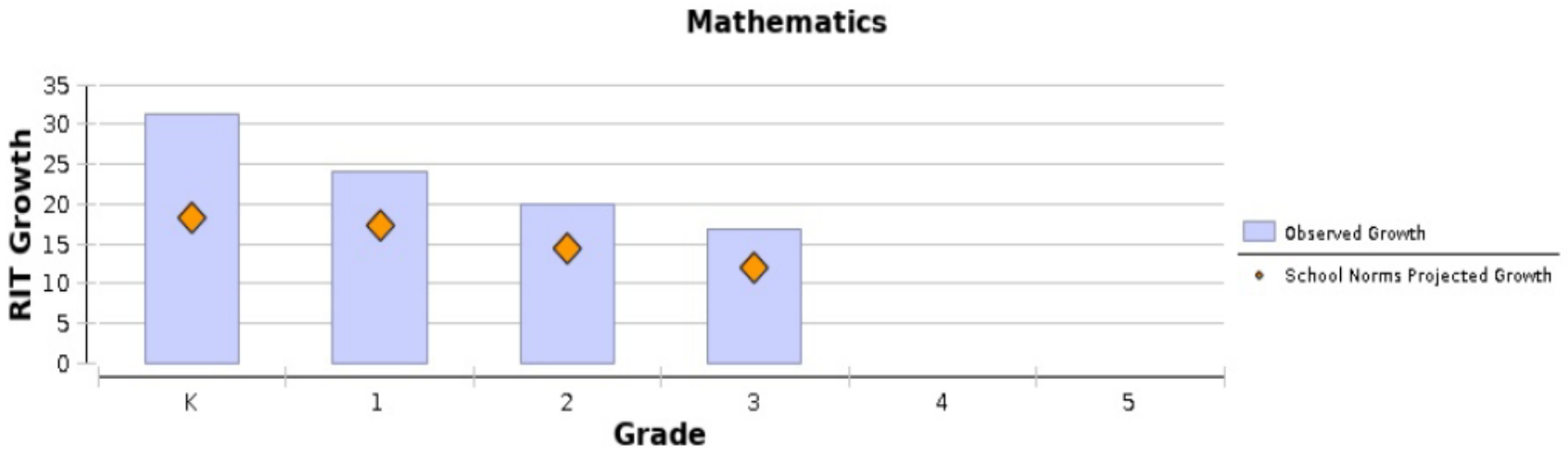
Term: Spring 2018-2019
District: Inkster Preparatory Academy

Norms Reference Data: 2015 Norms
Growth Comparison Period: Fall 2018 - Spring 2019
Weeks of Instruction: Start - 4 (Fall 2018)
End - 30 (Spring 2019)
Grouping: None
Small Group Display: No

Inkster Preparatory Academy

Mathematics

		Comparison Periods								Growth Evaluated Against						
		Fall 2018			Spring 2019			Growth		School Norms			Student Norms			
Grade (Spring 2019)	Growth Count‡	Mean RIT	SD	Percentile	Mean RIT	SD	Percentile	Observed Growth	Observed Growth SE	Projected Growth	School Conditional Growth Index	School Conditional Growth Percentile	Count with Projection	Count Met Projection	Percent Met Projection	Student Median Conditional Growth Percentile
K	30	137.4	12.0	35	168.6	12.9	95	31.2	2.6	18.3	4.96	99	30	27	90	96
1	41	164.1	11.2	62	188.1	13.1	91	24.0	2.2	17.3	2.42	99	41	29	71	67
2	42	172.4	10.1	22	192.4	10.0	57	20.0	1.8	14.4	2.26	99	42	26	62	75
3	25	184.2	12.0	15	201.0	17.7	40	16.8	2.2	12.0	2.37	99	25	13	52	58
4	9	*			*			*					*			
5	2	*			*			*					*			



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Inkster Preparatory Academy

Reading

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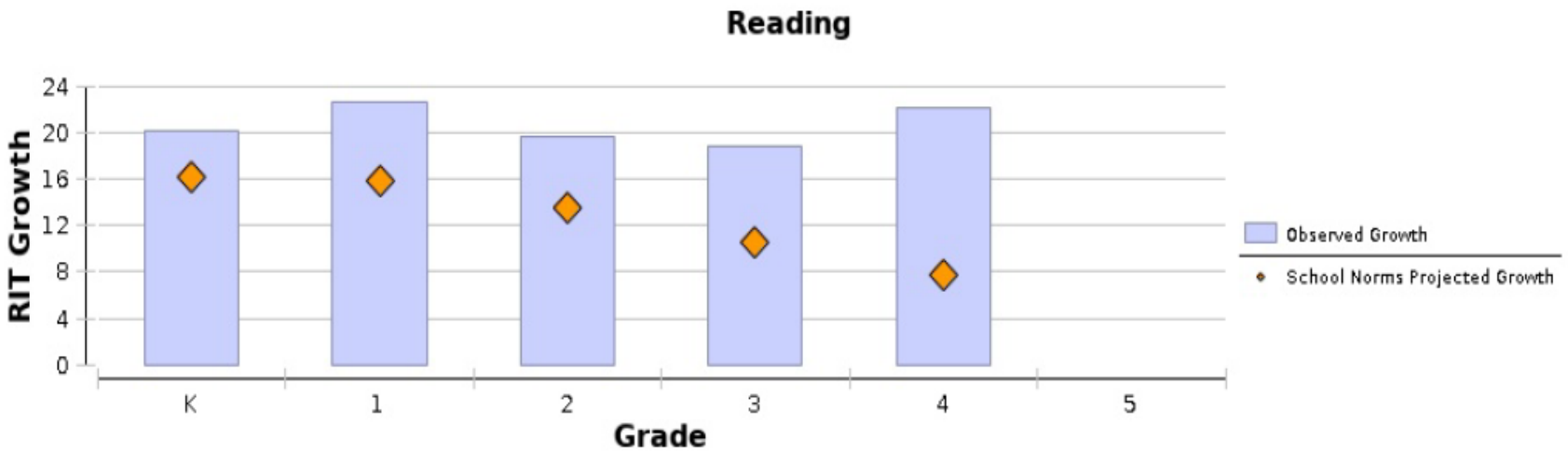
1	41	159.1	11.0	39	181.7	14.1	78	22.6	2.1	15.9	2.60	99	41	29	71	69
2	44	168.9	14.8	18	188.6	13.0	53	19.7	2.1	13.5	2.68	99	44	29	66	68
3	26	178.7	13.3	8	197.5	16.6	45	18.8	3.2	10.5	4.44	99	26	20	77	68
4	10	187.5	11.6	5	209.6	18.5	73	22.1	4.8	7.8	9.24	99	10	8	80	98
5	2	*			*			*					*			



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Their Reality

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Why do we need High Performing Schools?

- 40% of children living in poverty aren't prepared for primary schooling.
- Studies have found that by age four, children in middle and upper class families hear 30 million more words than children in families on welfare.
- By the end of the 4th grade, African-American, Hispanic and low-income students are already two years behind grade level. By the time they reach the 12th grade they are four years behind.
- More than 30 million children are growing up in poverty. In one low-income community, there was only one book for every 300 children.

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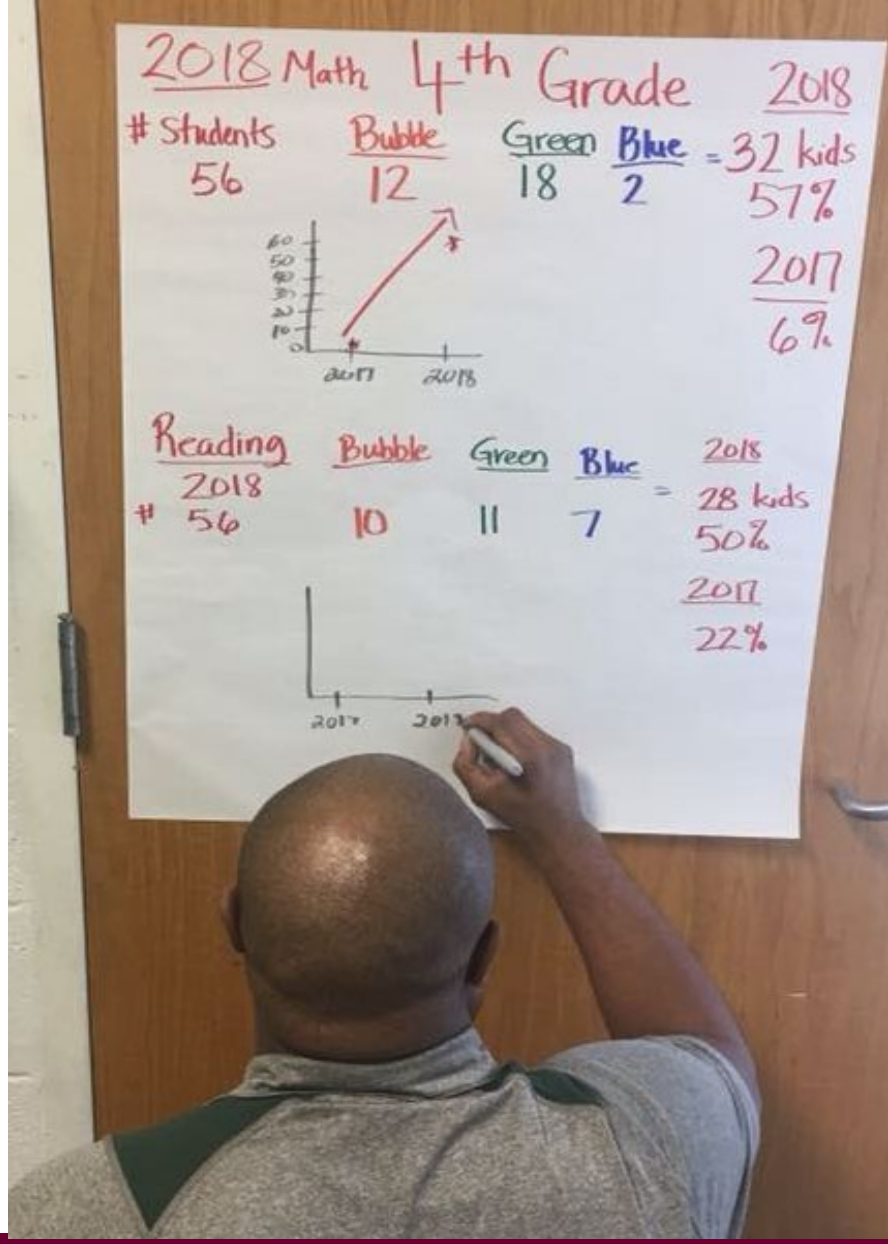
Massive failure cannot be the norm for students.

Far too many of our kids arrive at school with less… vocabulary, preschooling, educational learning experiences, books in the home, parents in the home, supplies and materials associated with learning and school, safe environment, and more. And what do we give them? They come with less and, in return, we give them less.

Raising the Achievement Bar

What process do you have in place to address student achievement at your school?



How can this be achieved at your school?

Practices that are important for Great Teachers and Model Schools

- Really know your data (Data Driven Schools).
- Build relationships with your students (Culturally Responsive Learning and Teaching).
- Extensive use of state and local standards to design curriculum and instruction, assess student work and evaluate teachers (High Expectations).
- Substantial investment in professional development (Developing your teachers, principal and leadership team).

Data Dig

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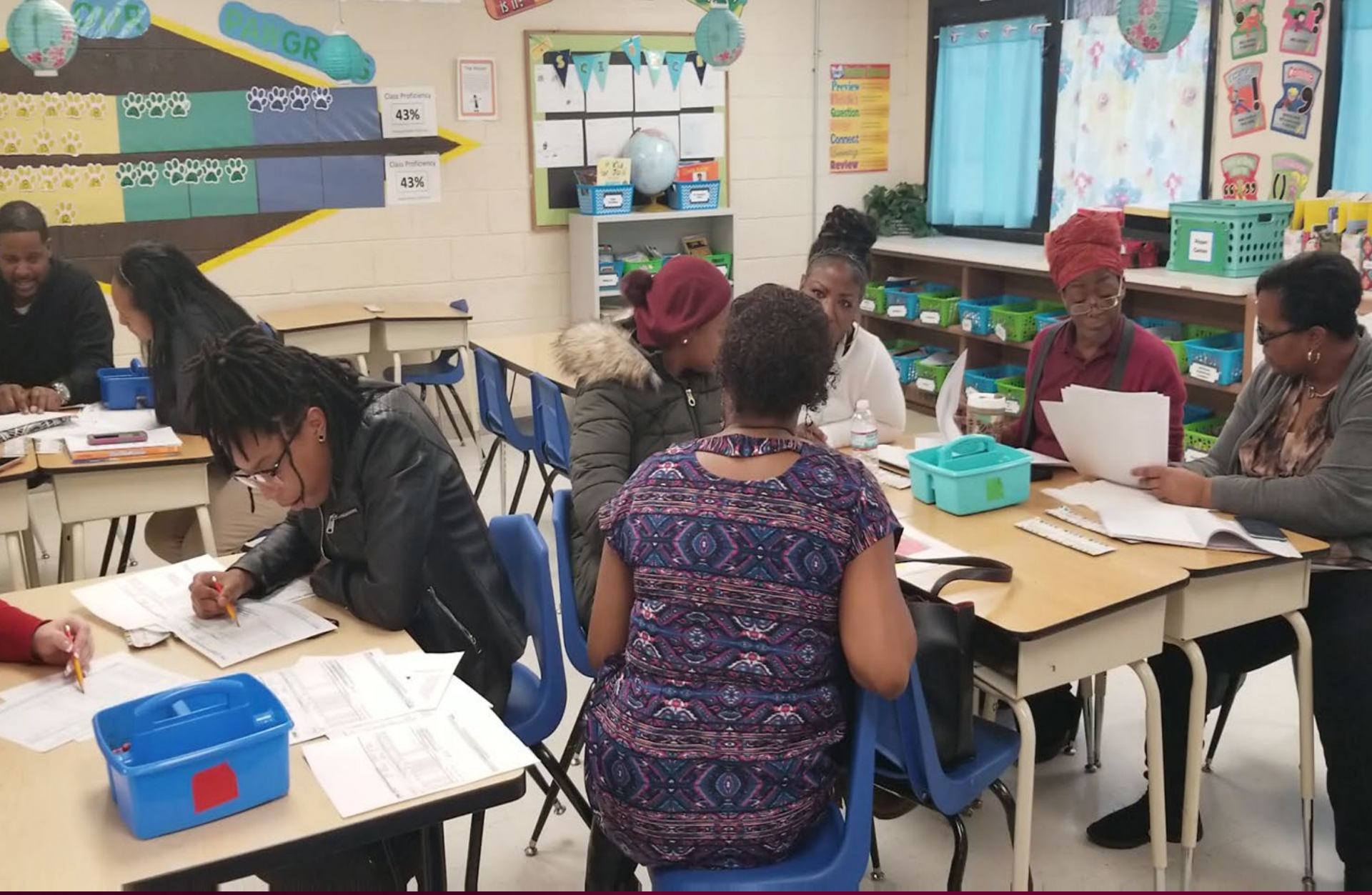

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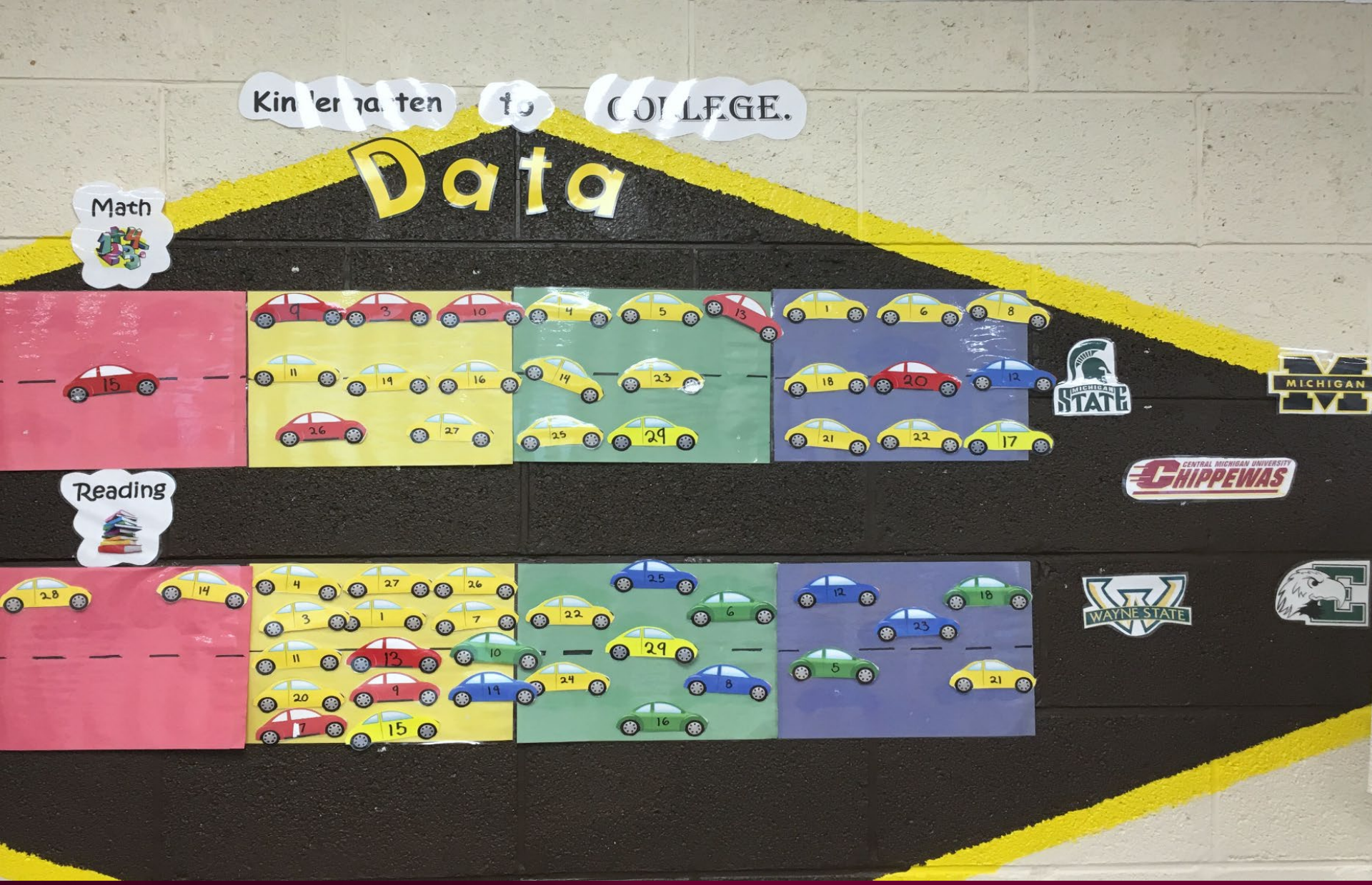
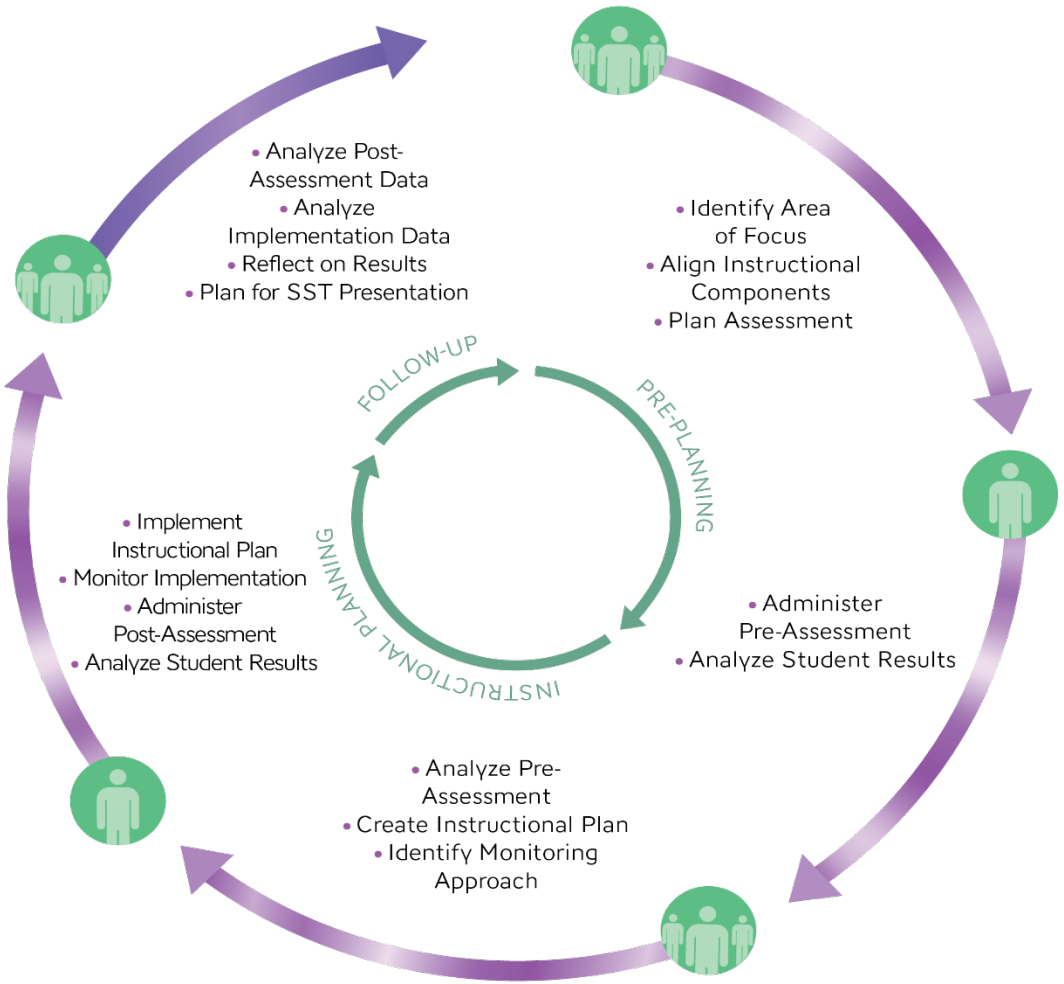

Kin ergarten to COLLEGE.
Data
Math
Reading
MICHIGAN STATE
MICHIGAN
CENTRAL MICHIGAN UNIVERSITY CHIPPEWAS
WAYNE STATE

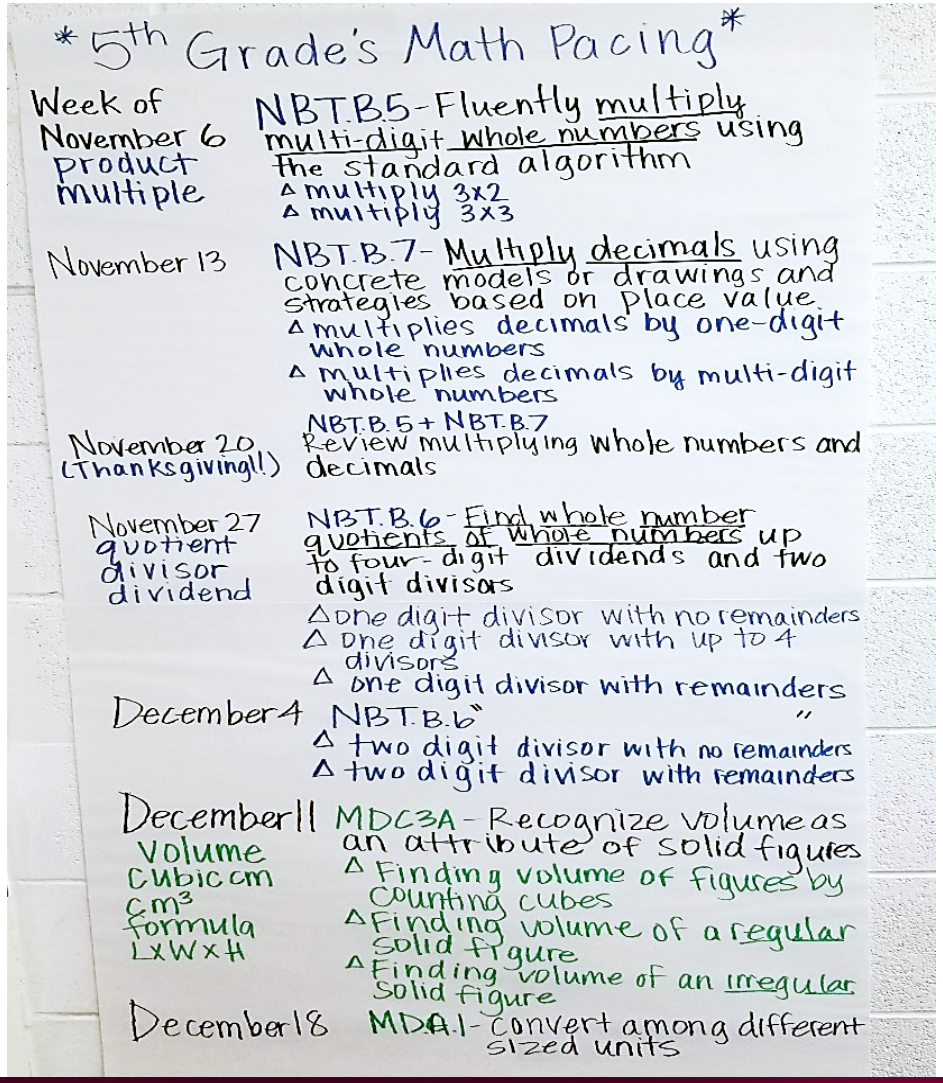
GAME CHANGER

Instructional Learning Cycle

IMPLEMENTING EFFECTIVE INSTRUCTION



WHAT STANDARDS DO I COVER?



* 5th Grade's Math Pacing *

Week of November 6 — product, multiple
NBT.B.5 - Fluently multiply multi-digit whole numbers using the standard algorithm
- △ multiply 3x2
- △ multiply 3x3

November 13
NBT.B.7 - Multiply decimals using concrete models or drawings and strategies based on place value
- △ multiplies decimals by one-digit whole numbers
- △ multiplies decimals by multi-digit whole numbers

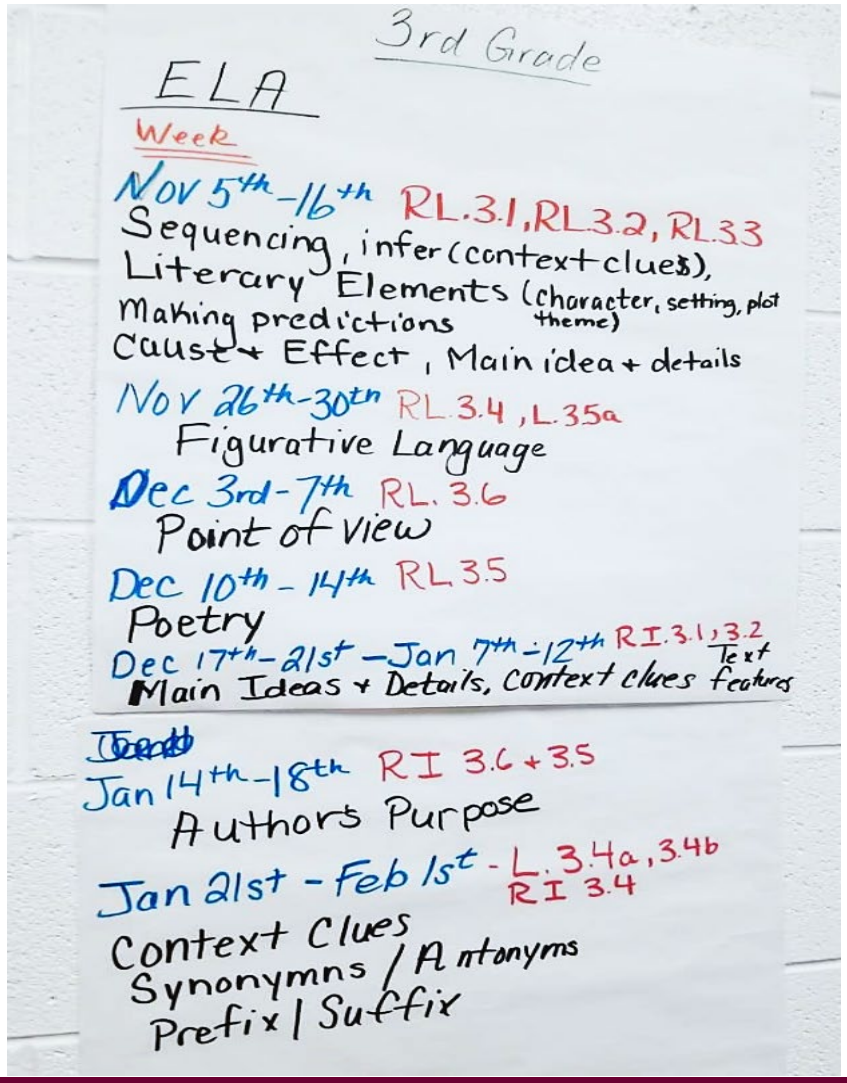
November 20 (Thanksgiving!!)
NBT.B.5 + NBT.B.7
Review multiplying whole numbers and decimals

November 27 — quotient, divisor, dividend
NBT.B.6 - Find whole number quotients of whole numbers up to four-digit dividends and two digit divisors
- △ one digit divisor with no remainders
- △ one digit divisor with up to 4 divisors
- △ one digit divisor with remainders

December 4
NBT.B.6 "
- △ two digit divisor with no remainders
- △ two digit divisor with remainders

December 11 — Volume, Cubic cm, cm^3, formula, LxWxH
MDC3A - Recognize volume as an attribute of solid figures
- △ Finding volume of figures by counting cubes
- △ Finding volume of a regular solid figure
- △ Finding volume of an irregular solid figure

December 18
MDA.1 - Convert among different sized units



3rd Grade

ELA

Week

Nov 5th-16th RL.3.1, RL.3.2, RL.3.3
Sequencing, infer (context clues), Literary Elements (character, setting, plot theme)
Making predictions
Cause + Effect, Main idea + details

Nov 26th-30th RL.3.4, L.3.5a
Figurative Language

Dec 3rd-7th RL.3.6
Point of View

Dec 10th - 14th RL.3.5
Poetry

Dec 17th-21st — Jan 7th-12th RI.3.1, 3.2 Text features
Main Ideas + Details, context clues

Jan 14th-18th RI 3.6 + 3.5
Authors Purpose

Jan 21st - Feb 1st - L.3.4a, 3.4b RI 3.4
Context Clues
Synonymns / Antonyms
Prefix / Suffix

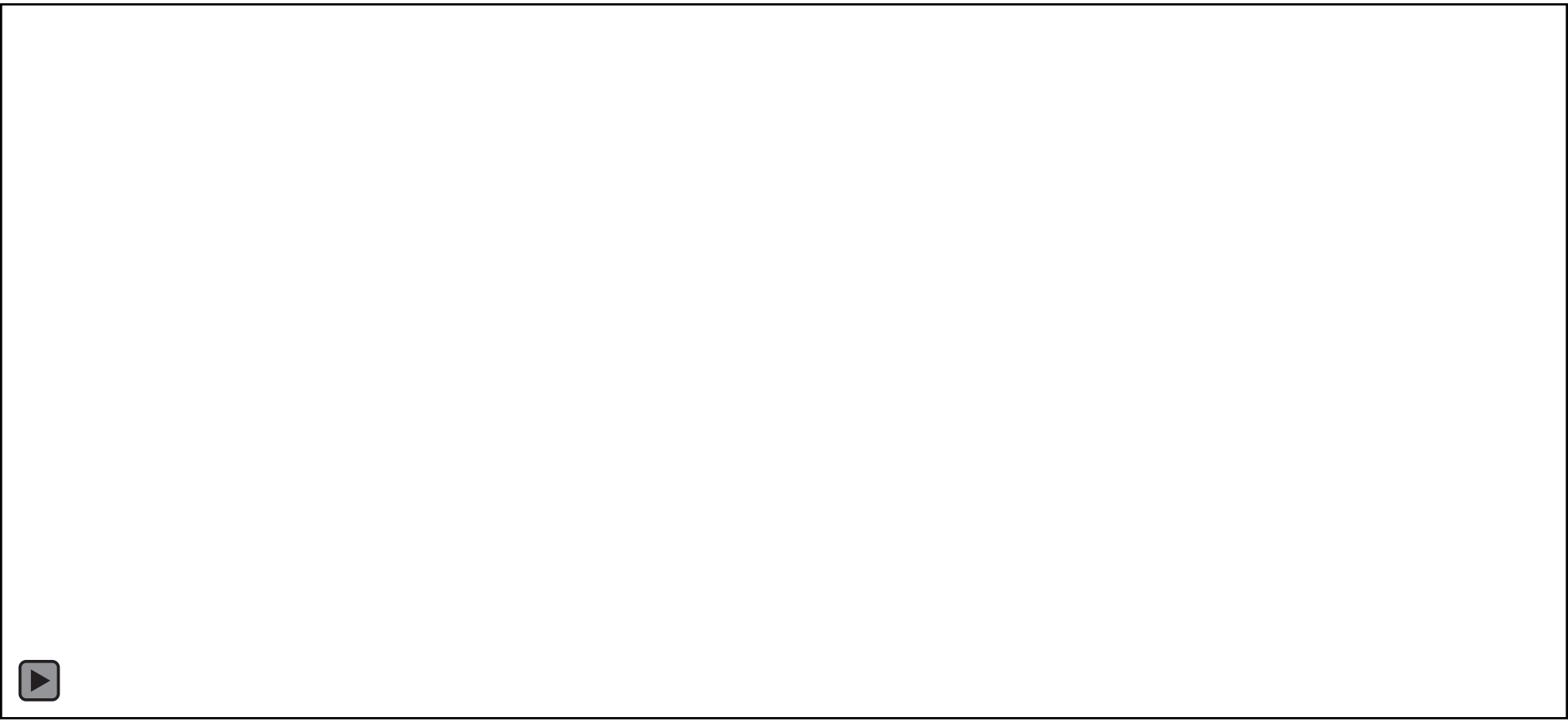
Week of	Domain/ Focus Standard Math	Domain/Focus Standard ELA
November 20th and Week of November 27th	**Measurement and Data (2.MD)** **CCSS.Math.Content.1.MD.C.4: Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.** Compares values in a picture graph Compares values in a table or chart Distinguishes the title of a graph Locates information in a bar graph with single-unit scale Represents data in a picture graph Represents data in a table or chart Represents data in bar graphs with single-unit scales Represents data in pictographs with single-unit scales Solves problems using data in a pictograph with single-unit scales Solves problems using data in a picture graph Solves problems using data in a table Titles a graph appropriately Review: Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.	**Reading Standards for Literature (RL.2)** **CCSS.ELA-Literacy.RL.1.5: Explain major differences between books that tell stories and books that give information, drawing on a wide reading of a range of text types.** Classifies literary text as a folktale Classifies literary text as a story Classifies literary text as poetry Distinguishes between fiction and nonfiction read aloud Understands characteristics of fiction Understands characteristics of nonfiction Review: Ask and answer questions about key details in a text read aloud or information presented orally or through other media.
Vocabulary	**digit, data, centimeter**	**fairy tale, folktale, comprehension**

Week of	Domain/ Focus Standard Math	Domain/Focus Standard ELA
December 4th and Week of December 11th	**Numbers/Operations in Base Ten (2.NBT)** **CCSS.Math.Content.2.NBT.B.7: Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.** Subtracts whole numbers within 100 using base-ten blocks, no regrouping Review: Place value – 3 digits…stretch to 4 digit – students can count amounts using 1s, 10s, 100s or small cubes, ten rods, hundred flats	**Reading Standards Informational text (RI.2)** **CCSS.ELA-Literacy.RI.1.2: Identify the main topic and retell key details of a text.** Understands the main idea of informational paragraphs read aloud Understands the topic of informational paragraphs read aloud Review: Explain major differences between books that tell stories and books that give information, drawing on a wide reading of a range of text types.
Vocabulary	**expanded notation, operations, fact family**	**main idea, retell, purpose**

Week of	Domain/ Focus Standard Math	Domain/Focus Standard ELA
December 18th and Week of January 8th	**Measurement and Data (2.MD)** **CCSS.Math.Content.2.MD.C: Work with time and money.** Determines the value of a collection of bills Determines the value of a collection of coins and bills Determines the whole number value of a collection of coins given as pictures Identifies equivalent sets of coins Review: add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	**Reading Standards Informational text (RI.2)** **CCSS.ELA-Literacy.RI.K.7: With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts).** Infers the meaning of an advertisement from text and pictures **Review: Ask and answer questions about key details in a text.** Determines specific purpose of an advertisement. Locates details in informational text
Vocabulary	**clockwise, estimation, customary unit**	**main character, question, reread**

Week of	Domain/ Focus Standard Math	Domain/Focus Standard ELA
January 15th and Week of January 22nd	**Measurement and Data (2.MD)** **CCSS.Math.Content.2.MD.C.8: Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately.** Solves one-step addition word problems involving whole dollars Review: add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	**Reading Standards Informational text (RI.2)** **CCSS.ELA-Literacy.RI.1.7: Use the illustrations and details in a text to describe its key ideas.** Infers the meaning of an advertisement from text and pictures Review: Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text. Locates information in a newspaper Locates information in tables of contents
Vocabulary	**estimation, numeral, place value**	**map, table of contents, character**

How do you progress monitor what is being taught?



Week of:	Standard(s) / Performance Indicator(s)	Focus Skills
November 05, 2018	2.G.A.3	Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths

Weekly Common Assessment Tracker Teacher: Ms. Tumpkin

Week Ending: Friday, November 09, 2018

Focus Standard(s) / Performance Indicator(s): Strategies to partition and recognize shapes divided into halves, thirds and fourths.

Question	Indicator (image of a partitioned fractions)	Percent Correct
1 Circle everything divided into **halves**.	Bryce, Jimaya, Jordyn	16/19=84%
2 Circle all of the shapes divided into **thirds.**	Amauri, Jaden, Jimaya, Keon, Jordyn	14/19= 73%
3 Circle everything divided into **fourths.**	Bryce, Erin, Jordyn	16/19=84%
5 Look at the pizza below. Explain why it's divided into fourths.	Anaya, Shaviny, Jameer, Kamora, Jazmine, Le'neya. Erin, Keon, Jordyn	10/19= 52%
6 Look at the shape. Explain why it is divided into halves.	Jazmine, Le'neya, Keon, Jordyn	14/19= 73%

Support provided for students who did not achieve 80% mastery:

In small groups – provide opportunities for students to compare fraction parts using halves, thirds, and fourths. Have students sort and evaluate equal and not equal fractions.

Notes: 19 students took this week's assessment:

and were absent. Students had difficulty explaining why the pizza image was divided into fourths.

Data Wall Teacher: Ms. Tumpkin

Period Ending: Friday, November 09, 2018

Focus Standard(s) / Performance Indicator(s): Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths.

Skills Taught: Strategies to partition and recognize shapes divided into halves, thirds and fourths.

Advanced 95 – 100%	Proficient 80% - 94%	Partially Proficient 70–79%	Not Proficient - Below 70%
Number: 6 Darrian, Makyiah, Jeremiah, Macaylee, Zaharia, Antonio	Number: 11 Anaya, Shaviny, Amauri, Jaden, Jameer, Kamora, Bryce, Jimaya, Erin Jazmine, Le'neya	Number:	Number: 2 54% Keon 36% Jordyn

Putting It All Together

Success occurs when…
opportunity meets preparation

~Zig Ziglar


How will you use what you learned today to be a CHANGEMAKER for kids?