Today’s Agenda

• Mathematics and Mindsets
• PRR: The Mathematics of Hope
• Lunch
• Summer Assessments
• Team Project Rehearsal
• Team Project Sharing
• This and That & Closing
• Individual Project Work Time
Growing Growth Mindsets

K-3

Michelle Painter and Alyssa Murphy
Mequon-Thiensville School District
Agenda

- Learning Intentions
- What are mindsets?
- Activity
- Research
- What’s the math?
- What we did
- Wrap up
Learning Intention & Success Criteria

Learning Intention

• We are learning how to grow a growth mindset in grades Kindergarten through 3rd.

Success Criteria

• We will be successful when we can feel confident using one of the resources we learned about today with our students.
<table>
<thead>
<tr>
<th>Fixed Mindset</th>
<th>Growth Mindset</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Skills</strong></td>
<td><strong>Setbacks</strong></td>
</tr>
<tr>
<td><em>Comes from hard work.</em></td>
<td><em>Use as a wake-up call to work harder next time.</em></td>
</tr>
<tr>
<td><em>Can always improve.</em></td>
<td></td>
</tr>
<tr>
<td><strong>Challenges</strong></td>
<td><strong>Feedback</strong></td>
</tr>
<tr>
<td><em>Should be embraced.</em></td>
<td><em>Useful.</em></td>
</tr>
<tr>
<td><em>An opportunity to grow.</em></td>
<td><em>Something to learn from.</em></td>
</tr>
<tr>
<td><em>More persistent.</em></td>
<td><em>Identify areas to improve.</em></td>
</tr>
<tr>
<td><strong>Effort</strong></td>
<td></td>
</tr>
<tr>
<td><em>Essential.</em></td>
<td></td>
</tr>
<tr>
<td><em>A path to mastery.</em></td>
<td></td>
</tr>
<tr>
<td><strong>Unnecessary</strong></td>
<td><strong>Get Defensive</strong></td>
</tr>
<tr>
<td><em>Something you do when you are not good enough.</em></td>
<td><em>Take it personal.</em></td>
</tr>
<tr>
<td><strong>Get defensive</strong></td>
<td><strong>Blame Others</strong></td>
</tr>
<tr>
<td><em>Take it personal.</em></td>
<td><em>Get discouraged.</em></td>
</tr>
<tr>
<td><strong>Feedback</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Setbacks</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Fixed Mindset</strong></td>
<td><strong>Growth Mindset</strong></td>
</tr>
<tr>
<td><em>Something you're born with.</em></td>
<td><em>Something to avoid.</em></td>
</tr>
<tr>
<td><em>Fixed.</em></td>
<td><em>Could reveal lack of skill.</em></td>
</tr>
<tr>
<td><em>Tend to give up easily.</em></td>
<td><em>Unnecessary.</em></td>
</tr>
<tr>
<td><em>Something you do when you are not good enough.</em></td>
<td><em>Get defensive.</em></td>
</tr>
<tr>
<td><strong>Get defensive</strong></td>
<td><strong>Blame Others</strong></td>
</tr>
<tr>
<td><em>Take it personal.</em></td>
<td><em>Get discouraged.</em></td>
</tr>
</tbody>
</table>

“When students believe that their intelligence can increase they orient toward doing just that, displaying an emphasis on learning, effort, and persistence in the face of obstacles” (Dweck, 2010, p.4)

- Teaching a growth mindset raises achievement scores and student investment and enjoyment of school.

- Teachers with growth mindsets impact student achievement.

- Mindsets predict math and science achievement.
What Does Your Brain Do?

It tells you what's smart and what's not smart.
Support Productive Struggle in Learning Mathematics

Effective teaching of mathematics consistently provides students, individually and collectively, with opportunities and supports to engage in productive struggle as they grapple with mathematical ideas and relationships.
Students tend to have more of a fixed view of math skills than any other intellectual skills.

A study in 2010 conducted by Change the Equation found that 3 out of 10 Americans said they consider themselves bad at math.

Over half of the 18 to 34-year-old bracket said they “can’t do math.”

One-third of Americans reported they would rather clean a bathroom than solve a math problem.

If kids do not believe they can improve, they won’t bother trying.

Dickerson, K., 2013
Dweck, C., 2008
Kindergarten Brain Week

Science of our brains

Value of mistakes

The power of “yet”

Persevering in times of challenge

Putting it all together
Episode One: Dojo
Mindset: Talk Back Bubbles

I made a mistake

Mistakes are good
Because it helps you learn

This is not too hard and you can't give up

I am not going to practice

No I'm not going to give up Bra

MV2 DEL GUD ITZ 2023

It is sorry if you made

I am not going to give up
Second and Third Grade Brain Week

Science of our brains

The power of “yet”

Putting it all together

Value of mistakes

Persevering in times of challenge
Science of our brains

- Brain Book
- Fantastic Elastic Brain
- Video clip
Value of Mistakes

- The Girl Who Never Made Mistakes
- Beautiful Oops
- It’s Okay to Make a Mistake
- Meet the Robinsons - video clip
The Power of “Yet”

- Talk back moves
- Someday
- Janelle Monae - Power of Yet
Persevering In Times of Challenge

- Famous Failures clip
- Quote
- Just keep swimming (Finding Nemo)-video clip
- Bruno Mars-Don’t Give Up
- Will i am-What I am
- Ormie the Pig-video clip
- How to Catch a Star

GOOD MATHEMATICS IS NOT ABOUT HOW MANY ANSWERS YOU KNOW...IT'S ABOUT HOW YOU BEHAVE WHEN YOU DON'T KNOW.
Putting It All Together

How can a growth mindset help you?
So...when are we supposed to do this?
Books

1. The Most Magnificent Thing
   - Ashley Spires

2. The Dot
   - Peter H. Reynolds

3. Fantastic Elastic Brain
   - By Julian Cooper, Ph.D.

4. The Girl Who Never Made Mistakes
   - By Mark Pett and Gary Rubinstein

5. Everyone Can Learn to Ride a Bicycle
   - By Chris Raschka

6. Someday
   - By Eileen Spinelli
   - Illustrated by Rosie Wistendahl
Kindergarten Growth Mindset Song
Let’s Chat, Chart & Move

Stop #1

Stop #2

Stop #3

Stop #4 Book Browsing and Book Boosters
Questions?

amurphy@mtsd.k12.wi.us
mpainter@mtsd.k12.wi.us
The Mathematics of Hope

Dr. Jo Boaler
Jo Boaler Talks About Mindsets

Week of Inspirational Math

– Exposes students to interesting, engaging, beautiful mathematics problems in order to capitalize on their natural curiosity.

– Communicates a growth mindset message to encourage confidence, perseverance, and embracing mistakes in mathematics.
After you read the article...

As you reflect on the research, classroom resources, and other information shared this morning, what some ways you see this influencing your transition goal?

In your PRR, discuss two specific examples from this morning that will impact your goal and how that influence will be visible.
Reflection Logs
Reflective Log

Remove staple.

Write your name on the upper right-hand corner of each page.

Make a stack at your table.

We will scan them over lunch and then return them to you.
Notebooks

Submit to instructors to review the final PRR.
LUNCH
UWM
Graduate School Application & Course Enrollment
(Pam)
Pam

Thank You!
Project Evaluation
Comparison Group Recruitment

See Handout.

We are looking for more volunteers.

Contact Meghan Steinmeyer:

meghanba@uwm.edu
Video

Again next spring for everyone!

A few of you, still need to upload your current video.
Reflective “Nugget” Essay

Due: Friday, July 8
Email to: Michelle Douglas-Meyer
Format: Typed, 2-4 Pages.
Narrative reflection of nuggets from this summer.
Optional: Graphics, Tables, Vignettes

Note: Part of course grade, and will also be used for evaluation purposes.
UWM Instructor Evaluation

Bubble in:

Last Name: Huinker
ID: 626101
Items: #1-14

Then complete open-ended items on the back. Comments will be shared with all instructors.
Computer Lab

Need Strong Start ID

Online Survey
  Link in email.
  34 Likert items, 2 Open Response items

MKT Constructed Response
  3 Items
Team Project Presentations
Sharing & Prepping Team Projects

• An opportunity to either:
  – Rehearse your talking points
  – Share your talking points with another school team.

1. Meet with your school team to prep.
2. Share your talking points with the other team.
Setting September Goals

• Review your daily log
• As you reread your “Classroom Ideas to Try” column, highlight 2-3 that you will commit to using in your classroom in fall.
• Write one of the ideas that you highlighted on a large post-it. Stick that post-it right inside your binder.
Closing Comments

Starting Students Strong in Mathematics: Strengthening Teacher Mathematical Knowledge and Instruction in Grades K–3
Mathematics Focus
Summer 2016
Early Number, Operations, and Algebraic Reasoning
MPS District Priority: Algebra Readiness

“Growing Algebraic Thinking and Understanding through the Grades”

- Equality and Equivalence
- Numeric Flexibility
- Representational Fluency
- Composing and Decomposing
- Contextualizing and Decontextualizing
Project Goals
Project Goals

**Goal 1.** Deepen knowledge of mathematical concepts, connections, and progressions for teaching the *Wisconsin Standards for Mathematics*.

**Goal 2.** Strengthen use of high-leverage mathematics teaching practices and research on children's learning of mathematics in classroom instruction.

**Goal 3.** Build a strong mathematical foundation by developing understanding and fluency among young learners along mathematics learning trajectories.
This and That

THIS

:)
Course Assignments

Due: Friday, July 8
Email Michelle: douglams@milwaukee.k12.wi.us

- Reflective Nugget Essay
- Team Project
- Individual Project

Grades posted in August. Access via UWM Paws.
www.uwm.edu/strongstart

General Documents

Syllabus (PDF)
PtA Teaching Practices (PDF)
CC-OA Standards Worksheet (DOC)
Math Practices Charts (PDF)
Individual Project (DOC)
Team Project (DOC)

<table>
<thead>
<tr>
<th>Session 1: June 20, 2016</th>
<th>Session 2: June 21, 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slides (PPT)</td>
<td>Slides (PPT)</td>
</tr>
<tr>
<td>Handouts (PDF)</td>
<td>Handouts (PDF)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Session 3: June 22, 2016</th>
<th>Session 4: June 23, 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slides (PPT)</td>
<td>Slides (PPT)</td>
</tr>
<tr>
<td>Handouts (PDF)</td>
<td>Handouts (PDF)</td>
</tr>
</tbody>
</table>
Project Overview

Year 1, Early Number, Operations, & Algebraic Reasoning
Summer Institute: June 20–July 1, 2016
School Year 2016–2017; Ten Sessions, Thursdays, 4:30–7:30 pm

Year 2, Number and Operations in Base Ten
Summer Institute: June 19–30, 2017; Mon-Fri, 8 am – 4 pm
School Year 2016–2017; Ten Sessions, Thursdays, 4:30–7:30 pm

Year 3, Measurement, Geometry, and Fraction Concepts
Summer Institute Only: June 18–29, 2018; Mon-Fri, 8 am – 4 pm
School Year 2016-2017 Session Dates

Thursdays, 4:30–7:30 pm
MPS Central Services Building, Room 206-208
5225 W. Vliet Street, Milwaukee, WI

<table>
<thead>
<tr>
<th>Fall 2016</th>
<th>Spring 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 8</td>
<td>January 12</td>
</tr>
<tr>
<td>September 22</td>
<td>January 26</td>
</tr>
<tr>
<td>October 6</td>
<td>February 23</td>
</tr>
<tr>
<td>October 20</td>
<td>March 2</td>
</tr>
<tr>
<td>November 10</td>
<td>March 23</td>
</tr>
<tr>
<td></td>
<td>March 30</td>
</tr>
<tr>
<td></td>
<td>[snow date]</td>
</tr>
</tbody>
</table>

Official UWM Spring 2017 course.
Books for School Year

Continue to use the books from this summer, including your notebooks.

New Binder.

Note: We will let you know which books are needed for which class sessions.
Keep us updated on any changes in your school situation (school location, grade, position).

Brown Street Academy
Engleburg
Milwaukee Sign Language
Neeskara
Siefert

Eighty-First
Grantosa
Hawthorne
Pierce
Zablocki
Stipend

For full project participation including, submission of high-quality course requirements and for completion of evaluation requirements:

- Summer Stipend
- School Year Stipend

Check will be mailed to your home in early August.
Closing
Dr. Huinker, may I be excused? My brain is full!!