Welcome

Formative Assessment Process Driving Student Centered Math Instruction
Housekeeping

- Cell Phones
- Restrooms
- Breaks (around 9:50-10 and 2:35-2:45)
- Sign In
- Parking Lot
- Lunch (11:30 – 12:30)
- Collegial Respect
- Have Fun!
Welcome

Formative Assessment Process
Driving Student Centered Math Instruction

Thank you, facilitators!
Explore ways in which formative assessment attributes and practices move learning forward.

Plan next steps in embedding learning into practice.

Vertical teams will discuss how the formative process, through mathematics focused instruction, supports each student in learning.

Context of Learning: x and ÷ + and -

How to embed formative assessment practices into daily math instruction.

Participants will:
- construct a progression of learning (landscapes).
- discuss observed formative assessment practices.

Compose and share a definition or quote capturing the essence of what formative assessment is.

Develop a conceptual understanding of the Formative Assessment Process and its benefits.
Explore ways in which formative assessment attributes and practices move learning forward.

Plan next steps in embedding learning into practice.

Participants will:
- Construct a progression of learning (landscape).
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PLCs will discuss how the formative process, through mathematics focused instruction, supports each student in learning.

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How to embed formative assessment practices into daily math instruction.

Context of Learning:
- $x$ and $\div$
- $+$ and $-$

Compose and share a definition or quote capturing the essence of what formative assessment is.
Formative Assessment Defined

Formative assessment is a deliberate process used by teachers and students during instruction that provides actionable feedback that is used to adjust ongoing teaching and learning strategies to improve students' self-assessment, reflection and attainment of curricular learning targets/goals.
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SBAC
Formative Assessment Process
Formative Assessment Process

- Feedback
- Student Goal Setting
- Clarifying/Sharing Learning Intentions
- Questioning/Discussion
- Elicit Evidence
- Act on Evidence
- Interpret Evidence
- Generate feedback
SELF-REGULATED LEARNER

Builds Students’ Metacognition

Increases Students’ Motivation
Activity

Read:
(Shoulder Partners)
A’s Read: “Formative assessment: An enabler of learning”
B’s Read: “Five ‘Key Strategies’…”

After Reading:
• Shoulder partners will share key ideas from the articles.

• Read: “Formative Assessment Definitions and Quotes”

• Compose a definition or quote, capturing the essence of formative assessment.
How to embed formative assessment practices into daily math instruction.

Context of Learning: x and ÷ + and -

Develop a conceptual understanding of the Formative Assessment Process and its benefits.

Compose and share a definition or quote capturing the essence of what formative assessment is.
Benefits of Formative Assessment

Increasing Student Achievement

College and Career Readiness
<table>
<thead>
<tr>
<th>Factor</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobility</td>
<td>-.34</td>
</tr>
<tr>
<td>Television</td>
<td>-.18</td>
</tr>
<tr>
<td>Retention</td>
<td>-.16</td>
</tr>
<tr>
<td>Class size</td>
<td>.21</td>
</tr>
<tr>
<td>Questioning (Teacher Questioning)</td>
<td>.48</td>
</tr>
<tr>
<td>Peer and Social Support/Peer Tutoring</td>
<td>.52/.55</td>
</tr>
<tr>
<td>Challenging goals</td>
<td>.56</td>
</tr>
<tr>
<td>Self-verbalization/self-questioning</td>
<td>.64</td>
</tr>
<tr>
<td>Meta-cognitive strategies</td>
<td>.69</td>
</tr>
<tr>
<td>Feedback (alone)</td>
<td>.75</td>
</tr>
<tr>
<td>Teacher Clarity (Learning Targets)</td>
<td>.75</td>
</tr>
<tr>
<td>Class Discussion</td>
<td>.82</td>
</tr>
<tr>
<td>Providing Formative Evaluation</td>
<td>.90</td>
</tr>
</tbody>
</table>
The Ideal: Self-Regulated Learner

- **Plan Set Goals**
  - Task constraints
  - Beliefs about learning
  - Motivation

- **Apply Strategies**
  - Learning Targets
  - Success Criteria

- **Evaluate Strategies/Adapt**
  - Self-Questioning
  - Self/Peer Assessment
  - Feedback

- **Student Goal Setting**
  - Learning Targets
  - Success Criteria
  - Self/Peer Assessment
  - Feedback

Lovett, 2012
Other Benefits

• MTSS - Strengthens Tier instruction
• Supports Social and Emotional Learning
• Promotes Cultural Responsiveness
  – requiring the development and communication of high expectations for all students
  – targeting high-order, learner centered, rigorous pedagogies (Gorski, 2013)
Benefits of Formative Assessment

With a shoulder partner, discuss benefits of formative assessment that resonated with you the most.
If the error message “media unavailable” appears when attempting to launch this video, click on the blue star which is hyperlinked to the file.
Develop a conceptual understanding of the Formative Assessment Process and its benefits.

Explore ways in which FA attributes and practices move learning forward.

- Participants will construct a progression of learning (landscape).
- Participants will discuss FA practices observed.

Compose and share a definition or quote capturing the essence of what formative assessment is.

Context of Learning: $x$ and $\div$, $+$ and $-$
Interpret Evidence
Clarify Intended Learning
Act on Evidence
Elicit Evidence
Interpret Evidence
Clarifying/Sharing Learning Intentions
Questioning/Discussion
Student Self/Peer Assessment
Feedback
Student Goal Setting
Formative Assessment Process
“For formative assessment, teachers not only must be clear about what they want students to learn (the lesson objective or intended outcome for students who “get it”); they also must know typical student steps and missteps toward this goal (the typical learning progression).”
References


• Fosnot, Catherine, and Dolk, Maarten. (2001). Young Mathematicians at Work. Constructing Multiplication and Division. Heinemann, NH.


