What’s golden?
Introductions

• Jonathan Bostic
• Jessica Belcher
• Gabriel Matney
Agenda

• Introductions and Norms
• Morning Jumpstart: McNugget Numbers
• Framing our Summer Institute
  • Activity
• Lesson Reflection: Reflecting on SMCs and SMPs
• Lunch
• Launch after Lunch: Rodney the Rocker
  • Activity
• Lesson Reflection: Reflecting on SMCs and SMPs
• Lesson Planning
• Daily Evaluation
Evolving Norms for this PD

- We will be ready for class and use our class time effectively.
- We will keep our focus on learning and use technology for personal reasons during breaks.
- We will be respectful of each other’s time and space and work efficiently.
- We will actively participate by (a) listening to each other, (b) giving others our attention, (c) not speaking when someone else is talking, and (d) regularly sharing our ideas in class.
- If we disagree with someone or are unclear, we will ask a question about his or her idea and describe why we disagree or are confused.
- We will ask questions when we do not understand something. We will comment on others’ ideas rather than the person.
Evolving Norms for this PD

• We will take advantage of opportunities to share ideas and gather feedback through presentations.
• We will encourage one another to share ideas.
• We will show our appreciation to one another for their ideas.
• If we disagree with someone or are unclear about their ideas related to mathematics content and pedagogy, we will ask a question about his or her idea and describe why we disagree or are confused.
• We will ask questions when we do not understand something about mathematics content and pedagogy.
• We will comment on others’ ideas about mathematics content and pedagogy rather than the person.
Evolving Norms for this PD

• We will always look for another approach to solve problems.
• We will use pictures, graphs, tables, symbols, numbers, manipulatives, and/or words to assist us while doing mathematics.
• We will persist with every problem and examine it from multiple perspectives.
• We will be mathematically precise whenever possible.
• We will explain and justify our ideas in a way that everyone can understand.
• We will engage in rough-draft talk and encourage others to do so as well.
Framing our CAMP Summer Institute

• NCTM’s Prof. Teaching Standards for PD
  – Worthwhile task, Learning Environment, and Discourse
  – Standards for Mathematical Practice and Standards for Mathematics Content

• Grades 6-8 Standards for Math Content in Expressions and Equations.
  – We can design instruction as we make deeper and broader connections through own experiences with them.
Framing our CAMP Summer Institute

• Expected outcomes and products
  – You will develop a deeper, more well connected knowledge of Expressions and Equations for middle grades teachers.
  – You will gain greater understanding of the meaning in the SMPs and instruction promoting them (i.e., teacher- and student-related actions).
  – You will design one Expressions and Equations (EE) lesson to implement next academic year. Work on these lessons will be done in grade-level teams. The goal is to develop a coherent set of lessons related to the EE domain.
Framing our CAMP Summer Institute

• Expected outcomes and products
  – Your grade-level team is responsible for making sure a majority of Expressions and Equations (EE) standards in your grade-level are addressed if there are fewer people than standards.
  – As a set of lessons, there should be a sequence (and coherence) that moves through the standards and is appropriately rigorous.
  – Each teacher is responsible for creating a vocabulary list and definitions. Each team is responsible for combining these lists and providing possible resources for learning content-centric language during these lessons.
Daily Expectations

• We will meet everyday from 8am - 3:30 pm. Lunch will happen from approximately 11:30-12:00 but that might move earlier or later by 30 minutes, depending on the activity.

• We will reserve at least 1 hour each day for you to work in grade-level teams on your lesson. Your lesson and grade-level team’s materials are due BY 3:30 PM ON DAY 8 (JUNE 15). Christy will review them on Friday for mathematics content. Jonathan will review them starting on Thursday.

• You are strongly encouraged to bring your laptop. If you don’t have a laptop then feel free to use a BGSU laptop. You should save your daily work on a thumb drive.
Assessment

• Assessments to complete
  – LMT: Please complete this between Friday, June 9 and Wednesday, June 14.
A McNugget number is a positive integer that can be obtained by adding together orders of McDonald’s Chicken McNuggets, which come in boxes of 4, 6, 9, and 20. Find all the positive integers that are not McNugget numbers.
Activity – Gabriel

• You will also need to revise slide #2 with the names of the activities.
## Lesson Reflections

<table>
<thead>
<tr>
<th>Date:</th>
<th>Lesson:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Personal Notes</th>
<th>Group Discussion</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>Practice</td>
<td>Content</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Reflecting on SMCs and SMPs

• Share across your table with different SMPs and SMCs addressed by today’s activities.
  – Be purposeful indicating what specific behaviors or habits led you to conclude that you engaged in a specific SMP.
  – Similarly, what did the instructor(s) do to encourage/foster/facilitate that SMP?
LUNCH
Rodney the Rocker is in town!! He is performing in the center of town Saturday night. His music is so loud that people living within 5 blocks can hear the music from their home. Rodney’s Rockin’ Shuttle will not pick up anyone who lives within 5 blocks of the concert. If they want to attend, they must walk. You can assume the bus must drive only on roads represented by the grid lines. An additional assumption is that peoples’ homes are located only at corners.
Launch after Lunch: Rodney the Rocker
Activity – Gabriel
Lessons

• You will design **one Expression and Equations (EE)** lesson to implement next academic year. Work on this lesson will be done in grade-level teams.
  – Special education teachers are encouraged to work with those they tend to collaborate with most often, students they tend to see more frequently, or content that seems most unclear. You are still expected to author one EE lesson.
  – Each teacher is responsible for one lesson; however, the team’s lessons should be organized as part of a series of lessons that the grade-level teams could pick up and use in its entirety.
Lessons

• Lessons may use tasks from online/NCTM/books but they must be different in some way.
• TTLP questions must be clearly addressed. Copy and paste the question from the TTLP into your lesson so the reader knows its focus.
• You must address at least one bullet from each section within Parts 1 and 2.
• You must address two bullets from Part 3.
• You may use the provided BGSU lesson plan template or another lesson plan template as a way to frame your lesson.
Lessons

• Technology and other resources are encouraged.
• SMPs and SMCs must be indicated in the lesson.
• Assessment of some kind (questions, worksheet, brief quiz, etc.) must be provided.
• As a group, you must have a grade-level academic language support document. This should include words, definitions, examples, and if possible, ways to contextualize the word in a math task other than the one in the lesson. Hyperlinks to resources are encouraged.
Take Care

• Please complete the exit ticket and place it on the parking lot.
• Please help us keep the room in order by throwing away any trash and tidying your area.
• Bring snacks, drinks, and/or other food to share for Lesson study!
• See you tomorrow. Travel safely!