Do Now

*Building Math Skills—Promoting Math Talk in the Classroom*

After watching the NAEYC video, respond to the following prompts:

* Why is it so urgent that our children are exposed to rich and varied vocabulary in math?
* What are you already doing to promote language acquisition in math for your children? Where do you wish you were doing more?

What is Math Talk?

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***Preschool Children’s Mathematical Knowledge: The Effect of Teacher “Math Talk”***

“A Developmental Psych study examined the relation between the amount of mathematical input in the speech of preschool or day-care teachers and the growth of children’s conventional mathematical knowledge over the school year. Three main findings emerged.

* First, there were marked individual differences in children’s conventional mathematical knowledge by 4 years of age that were associated with socioeconomic status.
* Second, there were dramatic differences in the amount of math-related talk teachers provided.
* Third, and most important, **the amount of teachers’ math-related talk was significantly related to the growth of preschoolers’ conventional mathematical knowledge over the school year but was unrelated to their math knowledge at the start of the school year.**”

Jot down any notes that you find helpful from the group discussion here:

What is Math Talk?

* Math talk is as simple as it sounds: **talking with children about the math they experience.**
* The goal of math talk is to **keep the child talking**—this looks different dependent on a child’s age. For infants, you may be modeling this for them (we know their receptive language is high!). For toddlers and older children, you may be asking questions to keep the conversation going and to support them in verbalizing their thinking.
* Math talk is used to help children to **communicate their thinking** and **justify solutions to problems** they solve mentally.

Math Talk Video Analysis

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**Key Idea:** Math talk needs to be intentionally incorporated into classroom interactions—no matter the setting or “subject”—but it doesn’t require a giant lesson plan! This should feel natural and intuitive; the more you do it, the more natural it will become.

As you watch the video of math talk in a preschool setting, watch **how the teacher infuses math talk** into her classroom.

* What math talk do you notice educators or children using?
* What other math talk opportunities do you see?
* What math skills are being built into these opportunities?

Key Look-Fors: Math Talk

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| Math Talk Look Fors |
| **Infused Throughout the Day** | Takes advantage of opportunities that exist: routines such as attendance, lunch distribution, store center (counting money), building center (size and shapes), etc. |
| **Continues the Conversation** | Keep the child talking by asking questions, prompting, and more. |
| **Uses Appropriately Complex Math Vocabulary** | Tier 2 vocabularyChildren communicate accurately and confidently |
| **Promote Problem-Solving and Process, not just Skill** | It’s not just about vocabulary development or getting the right answerChildren explain their thinking and the process/approach they take. |

Planning for Math Talk

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**Key Idea:** Over time, the language we use for math talk will become more intuitive and natural. Planning and practicing math talk will help us get there, especially as we consider how math talk may look/sound different with each developmental step children take.

Use the space below to jot down notes from the example that you find useful.

Practice

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**Plan**

* **Imagine** you are popping into a two- or three-year-old classroom during center time. Children are engaged in **a blocks center, a library center, and a science center.**
* **Write one sentence you could use and one question you could ask of children in each center that would increase math talk.**

|  |  |
| --- | --- |
| Blocks Center | *Sentence* |
| *Question* |
| Library Center | *Sentence* |
| *Question* |
| Science Center | *Sentence* |
| *Question* |