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Please enjoy this complimentary excerpt from  
Meaningful Small Groups in Math, Grades K-5.

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## HOW DO I KEEP MY SMALL GROUP MEMBERS ON TRACK?

This certainly can be a challenge! You may find that in the small group setting, students become more talkative and less docile. The setting is somehow less formal, and they feel freer to go off topic, even in the middle of an in-depth academic conversation. This can be annoying at best, and can completely derail the learning at worst.

First, let's focus on being explicit. When we focus our students on the learning goals and explicitly state them up front, we have a much greater chance of being met with success. "Learning intentions can (and often should) have an inherent recursive element in that they build connections between previously learned content and new knowledge" (Hattie et al., 2017, p. 42). Stating the learning intention up front and then revisiting it as necessary may be all some students need.

**KATIE EXCELS AT** keeping her students on track during her math workshop, including when they work with her during their math small groups. Here's what she knows: *she needs a system for everything*. She spent the first week of school going over all routines and expectations so that there was no question regarding what should be done at any given time. The same was true for her math small groups.

Every day, when the students arrive at the small group table, the learning intention for their group is posted on a whiteboard that sits on a plate stand that Katie bought at the craft store. They read the intention together, and then they go over the task for the day. The foam workmats and writing tools are within reach for every student, and the manipulatives tubs are on a cart at the end of the table, in the event anyone needs them. Students know that their math small group time is precious, and they know that drink and bathroom breaks must be attended to before or after small group. If someone outside the current math small group needs assistance, they know to ask three others for help before approaching the small group area. And even then, they know to simply write their name on the Parking Lot board, never interrupting their classmates' precious learning time.

Because systems and expectations have been so well crafted and communicated, Katie is able to focus on keeping her students' attention on the math, asking prompting and probing questions, and targeting the math for every student in her presence. ●

In addition, Hattie et al. (2017) point out that task selection also makes a difference. When the tasks elicit just the right amount of productive math struggle and keep our students engaged in thinking, they are going to stay on track. Motivation to think is what we're after, right? To determine if a task elicits the "just-right" level of productive math struggle, consider the following prompts included in *Productive Math Struggle* by SanGiovanni et al. (2020) and shown in Figure 3.3.

More information about the characteristics of a quality math task can be found in *Productive Math Struggle* by SanGiovanni et al. (2020).

**Figure 3.3 • Characteristics of a Quality Math Task**

- ✓ Aligns to a mathematics content standard I am teaching
- ✓ Encourages my students to use representations
- ✓ Provides my students with an opportunity for communicating their reasoning
- ✓ Has multiple entry points
- ✓ Allows for different strategies for finding solutions
- ✓ Makes connections between mathematical concepts, between concepts and procedures, or between application and procedure
- ✓ Prompts cognitive effort
- ✓ Is problem-based, authentic, or interesting

Finally, in *Building Thinking Classrooms in Mathematics*, Liljedahl (2021, p. 84) offers us some great advice that can help us keep students on track. He describes three types of questions our students tend to ask when they're supposed to be doing work:

- Proximity questions
- Stop-thinking questions
- Keep-thinking questions

**Proximity questions** are the ones our students ask just because we're nearby. At face value, they seem innocent enough, but in reality, they're more about conveying the image of a good student rather than truly soliciting support. Often, students ask a question, get an answer, and then don't even do anything with the information they gleaned. And let's face it—during small group instruction, we tend to be completely accessible to them the entire time.

**Stop-thinking questions** tend to fall into the category of things that annoy us most. “Do we have to learn this?” “Is this going to be on the test?” “Is this right?” These questions are usually motivated by the reality that thinking is hard, and students are trying to offload the thinking onto someone else.

**Keep-thinking questions** include questions that indicate students want to move forward, do more math, or try something harder. These are music to our ears! “What's the next question?” “We want to try a harder problem, is that okay?” “When you say numbers that add to 10, do we only get to use whole numbers?”

When your students ask proximity questions and stop-thinking questions, Liljedahl (2021, pp. 89–90) suggests responding with a question that puts the thinking back on them (see Figure 3.4).

**Figure 3.4 • Questions That Elicit Student Thinking**

- Isn't that interesting?
- Can you find something else?
- Can you show me how you did that?
- Is that always true?
- Why do you think that is?
- Are you sure? Does that make sense?
- Why don't you try something else?
- Why don't you try another one?
- Are you asking me or telling me?

## HOW DO I SELECT JUST-RIGHT MATH ROUTINES?

In addition to selecting or creating just-right tasks, you might also consider some of the rich math routines that are now at our fingertips as tasks. A math routine is both structured and adaptable; it is a structure that facilitates student thinking and is adaptable enough to be used over and over while maintaining high levels of rigor with each repeated use. Some routines, such as “Which One Doesn't Belong?,” can serve as terrific focus activities during your warm-up or launch. Other routines, such as “Notice and Wonder,” lend themselves to increased communication. There are so many great routines available to us that you could use a different one every day and still not exhaust the list.

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That said, note that the power of a routine reveals itself when it is used routinely, not just once or twice. You will want to take time to explicitly teach the routines to students to maximize the benefit. Therefore, you might find it helpful to teach routines during whole-class instruction and then lean into those same routines during your small group sessions.

In Figure 3.5, you will find a list of a few amazing routines that you may consider using with your teacher-facilitated small groups.

**Figure 3.5 • Math Routines Worth Checking Out**

<b>Routine</b>	<b>Description</b>
Bet-Line	Word problem routine based on predicting what comes next
Esti-Mysteries	Number sense routine that uses riddles to find the total
Math Flips	Number sense routine with visual cues for students
Math Talks	Number and operations routines based on mental math strategies
Notice and Wonder	Thinking routine based on what students notice and wonder
Rough Draft Thinking	Communication routine where students share their thinking throughout the problem-solving process
Splat!	Number sense routine with visual cues for students
Target the Question	Word problem routine that poses different questions using the same prompt
Think Pair Share	Thinking routine where students think independently, talk in pairs, then share with the group
Three Reads Protocol	Word problem routine where students relate to the story, identify quantities and relationships, and predict the math question
Which One Doesn't Belong?	Thinking routine where students identify similarities and differences between and among four numbers, quantities, shapes, etc.

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