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Whether you are a classroom teacher, an interventionist, special educator, English as a second language teacher or other educator you might be wondering what do I do for small group math instruction?

We know all kids do not learn math at the same time and in the same ways and we know all kids need access to high quality grade level instruction. That is why ALN's balanced math block includes opportunities for both inclusion and differentiation. What happens when we get to that differentiation part? All students may be engaged with purposeful offerings through math menu and one or more educators become available to meet with small groups of students to work on going deeper into the grade level's High Leverage Concept (HLC) or might need to engage with unfinished learning from a previous grade level's HLC.

The amount of time teachers have to work with a group may vary greatly depending on who is in the group, what their needs are and what other groups you need to attend to that day. Whether you have 5 or 30 minutes with a group, one or more of these options will likely meet your needs. These can be mixed and matched throughout an intervention group's day or week to meet the needs of your learners.

Number Sense Routine (Launch)

We call number sense routines "Launch" here at All Learners Network because launch sets students up for success with numbers and success with learning. These number sense routines include estimation, problem strings, visual images and reasoning routines that promote discourse and build flexibility with numbers. They are low floor, high ceiling routines that allow access for all learners while building a positive learning



community. They are part of our balanced math block for whole group lessons and an excellent instructional tool to dig deeper into with a small group.

You can use a launch image with a small group that you have already used with the rest of the class if you want to go deeper into discussion and discourse around a particular launch. Another option is to use your small group time to preview an upcoming launch that will be used with the rest of the class. This can be helpful to build confidence in your small group and have them ready to join their peers in discourse with the larger group. Finally, your small group number sense routine could be completely disconnected from what the whole class is doing and really focus on unfinished learning a particular group still has.

Games

Games provide an opportunity for students to enter into a state of relaxed curiosity better than almost anything. When students are in a state of relaxed curiosity, they have a lot of capacity to learn. Games are also fun, engaging and a great way to get kids excited about their time spent in small groups.

I like games that have a low floor and a high ceiling. Even within our small groups, we have variations on what kids are ready for and this element means I can meet more kids right where they are. It also means I can use the same game over time to move learning forward. When I say a game has a low floor, I mean that the first level of the game can be directly modeled using a manipulative or a representational drawing. When I say I like games with a high ceiling, this means the game has multiple levels that increase in complexity that kids can engage with when they are ready. It also might mean that kids can create their own levels or versions of the game, playing around with game elements that make it more interesting and relevant to them.

Problem Solving

In order to build conceptual understanding of the High Leverage Concepts in mathematics, kids need a chance to engage with problems, solve them in ways that are accessible to them and look for connections between their strategy and the strategies of their peers. This can be practiced in a small group using low floor, high ceiling tasks along with the ALN Problem Introduction Protocol.

When a teacher introduces the problem using the protocol, kids get a chance to tackle the problem on their own or with a peer. The protocol helps kids get started and the teacher finishes by selecting and sequencing the strategies they want shared back with the rest of the group. Kids and teachers can make connections between strategies and reinforce the importance of having different strategies in their toolbox. This routine done in small groups can again review or preview what is happening in the larger class or be connected to a previous grade level's HLC that the group has some unfinished learning around.



No matter which option you choose, remember that small group time is still the place for teaching with inquiry and not teaching by telling. Kids should be engaged in playful, productive struggle and the teacher leading the group should see their role as that of facilitator and not the giver of knowledge. It is our job to encourage the productive struggle and allow students to construct their own meaning of important mathematical topics.

